










<p>Health Hazard</p>  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> • Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

OSHA[®] BRIEF

Hazard Communication Standard: Labels and Pictograms

OSHA has adopted new hazardous chemical labeling requirements as a part of its recent revision of the Hazard Communication Standard, 29 CFR 1910.1200 (HCS), bringing it into alignment with the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS). These changes will help ensure improved quality and consistency in the classification and labeling of all chemicals, and will also enhance worker comprehension. As a result, workers will have better information available on the safe handling and use of hazardous chemicals, thereby allowing them to avoid injuries and illnesses related to exposures to hazardous chemicals.

The revised HCS changes the existing Hazard Communication Standard (HCS/HazCom 1994¹) from a performance-based standard to one that has more structured requirements for the labeling of chemicals. The revised standard requires that information about chemical hazards be conveyed on labels using quick visual notations to alert the user, providing immediate recognition of the hazards. Labels must also provide instructions on how to handle the chemical so that chemical users are informed about how to protect themselves.

The label provides information to the workers on the specific hazardous chemical. While labels provide important information for anyone who handles, uses, stores, and transports hazardous chemicals, they are limited by design in the amount of information they can provide. Safety Data Sheets (SDSs), which must accompany hazardous chemicals, are the more complete resource for details regarding hazardous chemicals. The revised

standard also requires the use of a 16-section safety data sheet format, which provides detailed information regarding the chemical. There is a separate OSHA Brief on SDSs that provides information on the new SDS requirements.

All hazardous chemicals shipped after June 1, 2015, must be labeled with specified elements including pictograms, signal words and hazard and precautionary statements. However, manufacturers, importers, and distributors may start using the new labeling system in the revised HCS before the June 1, 2015 effective date if they so choose. Until the June 1, 2015 effective date, manufacturers, importers and distributors may maintain compliance with the requirements of HazCom 1994 or the revised standard. Distributors may continue to ship containers labeled by manufacturers or importers (but not by the distributor themselves) in compliance with the HazCom 1994 until December 1, 2015.

This document is designed to inform chemical receivers, chemical purchasers, and trainers about the label requirements. It explains the new labeling elements, identifies what goes on a label, and describes what pictograms are and how to use them.

Label Requirements

Labels, as defined in the HCS, are an appropriate group of written, printed or graphic informational elements concerning a hazardous chemical that are affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

The HCS requires chemical manufacturers, importers, or distributors to ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked with the following information: product identifier; signal word; hazard statement(s); precautionary

¹ Prior to the 2012 update, the Hazard Communication Standard had last been amended in 1994. 'HazCom 1994' refers to the version of the Hazard Communication Standard in effect directly prior to the 2012 revision, printed in the 1995 through 2011 versions of the Code of Federal Regulations. It is also available on OSHA's webpage.

statement(s); and pictogram(s); and name, address and telephone number of the chemical manufacturer, importer, or other responsible party.

Labels for a hazardous chemical must contain:

- Name, Address and Telephone Number
- Product Identifier
- Signal Word
- Hazard Statement(s)
- Precautionary Statement(s)
- Pictogram(s)

To develop labels under the revised HCS, manufacturers, importers and distributors must first identify and classify the chemical hazard(s). Appendices A, B, and C are all mandatory. The classification criteria for health hazards are in Appendix A and the criteria for physical hazards are presented in Appendix B of the revised Hazard Communication Standard. After classifying the hazardous chemicals, the manufacturer, importer or distributor then consults Appendix C to determine the appropriate pictograms, signal words, and hazard and precautionary statement(s), for the chemical label. Once this information has been identified and gathered, then a label may be created.

Label Elements

The HCS now requires the following elements on labels of hazardous chemicals:

- **Name, Address and Telephone Number** of the chemical manufacturer, importer or other responsible party.
- **Product Identifier** is how the hazardous chemical is identified. This can be (but is not limited to) the chemical name, code number or batch number. The manufacturer, importer or distributor can decide the appropriate product identifier. The same product identifier must be both on the label and in section 1 of the SDS.
- **Signal Words** are used to indicate the relative level of severity of the hazard and

alert the reader to a potential hazard on the label. There are only two words used as signal words, "Danger" and "Warning." Within a specific hazard class, "Danger" is used for the more severe hazards and "Warning" is used for the less severe hazards. There will only be one signal word on the label no matter how many hazards a chemical may have. If one of the hazards warrants a "Danger" signal word and another warrants the signal word "Warning," then only "Danger" should appear on the label.

- **Hazard Statements** describe the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. For example: "Causes damage to kidneys through prolonged or repeated exposure when absorbed through the skin." All of the applicable hazard statements must appear on the label. Hazard statements may be combined where appropriate to reduce redundancies and improve readability. The hazard statements are specific to the hazard classification categories, and chemical users should always see the same statement for the same hazards no matter what the chemical is or who produces it.
- **Precautionary Statements** describe recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to the hazardous chemical or improper storage or handling. There are four types of precautionary statements: prevention (to minimize exposure); response (in case of accidental spillage or exposure emergency response, and first-aid); storage; and disposal. For example, a chemical presenting a specific target organ toxicity (repeated exposure) hazard would include the following on the label: "Do not breathe dust/fume/gas/mist/vapors/spray. Get medical advice/attention if you feel unwell. Dispose of contents/container in accordance with local/regional/national and international regulations."

A forward slash (/) designates that the classifier can choose one of the precautionary statements. In the example

above, the label could state, "Do not breathe vapors or spray. Get medical attention if you feel unwell. Dispose of contents in accordance with local/regional/national/international regulations." See Examples 1 and 2A of this document as an example.

In most cases, the precautionary statements are independent. However, OSHA does allow flexibility for applying precautionary statements to the label, such as combining statements, using an order of precedence or eliminating an inappropriate statement.

Precautionary statements may be combined on the label to save on space and improve readability. For example, "Keep away from heat, spark and open flames," "Store in a well-ventilated place," and "Keep cool" may be combined to read: "Keep away from heat, sparks and open flames and store in a cool, well-ventilated place." Where a chemical is classified for a number of hazards and the precautionary statements are similar, the most stringent statements must be included on the label. In this case, the chemical manufacturer, importer, or distributor may impose an order of precedence where phrases concerning response require rapid action to ensure the health and safety of the exposed person. In the self-reactive hazard category Types C, D, E or F, three of the four precautionary statements for prevention are:

- "Keep away from heat/sparks/open flame/hot surfaces. - No Smoking.";
- "Keep/Store away from clothing/.../combustible materials";
- "Keep only in original container."

These three precautionary statements could be combined to read: "Keep in original container and away from heat, open flames, combustible materials and hot surfaces. - No Smoking."

Finally, a manufacturer or importer may eliminate a precautionary statement if

it can demonstrate that the statement is inappropriate.

- **Supplementary Information.** The label producer may provide additional instructions or information that it deems helpful. It may also list any hazards not otherwise classified under this portion of the label. This section must also identify the percentage of ingredient(s) of unknown acute toxicity when it is present in a concentration of $\geq 1\%$ (and the classification is not based on testing the mixture as a whole). If an employer decides to include additional information regarding the chemical that is above and beyond what the standard requires, it may list this information under what is considered "supplementary information." There is also no required format for how a workplace label must look and no particular format an employer has to use; however, it cannot contradict or detract from the required information.










An example of an item that may be considered supplementary is the personal protective equipment (PPE) pictogram indicating what workers handling the chemical may need to wear to protect themselves. For example, the Hazardous Materials Identification System (HMIS) pictogram of a person wearing goggles - may be listed. Other supplementary information may include directions of use, expiration date, or fill date, all of which may provide additional information specific to the process in which the chemical is used.

- Pictograms are graphic symbols used to communicate specific information about the hazards of a chemical. On hazardous chemicals being shipped or transported from a manufacturer, importer or distributor, the required pictograms consist of a red square frame set at a point with a black hazard symbol on a white background, sufficiently wide to be clearly visible. A square red frame set at a point without a hazard symbol is not a pictogram and is not permitted on the label.

The pictograms OSHA has adopted improve worker safety and health, conform with the GHS, and are used worldwide.

While the GHS uses a total of nine pictograms, OSHA will only enforce the use of eight. The environmental pictogram is not mandatory but may be used to provide additional information. Workers may see the ninth symbol on a label because label preparers may choose to add the environment pictogram as supplementary information. Figure 1 shows the symbol for each pictogram, the written name for each pictogram, and the hazards associated with each of the pictograms. Most of the symbols are already used for transportation and many chemical users may be familiar with them.

Figure 1: Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (Hazard) • Narcotic Effects • Respiratory Tract Irritant • Harmful to Ozone Layer (Non-Mandatory)
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It is important to note that the OSHA pictograms do not replace the diamond-shaped labels that the U.S. Department of Transportation (DOT) requires for the transport of chemicals, including chemical drums, chemical totes, tanks or other containers. Those labels must be on the external part of a shipped container and must meet the

DOT requirements set forth in 49 CFR 172, Subpart E. If a label has a DOT transport pictogram, Appendix C.2.3.3 states that the corresponding HCS pictogram shall not appear. However, DOT does not view the HCS pictogram as a conflict and for some international trade both pictograms may need to be present on the label. Therefore, OSHA intends to revise C.2.3.3. In the meantime, the agency will allow both DOT and HCS pictograms for the same hazard on a label. While the DOT diamond label is required for all hazardous chemicals on the outside shipping containers, chemicals in smaller containers inside the larger shipped container do not require the DOT diamond but do require the OSHA pictograms. (See Example 2.)

Labels must be legible, in English, and prominently displayed. Other languages may be displayed in addition to English. Chemical manufacturers, importers, and distributors who become newly aware of any significant information regarding the hazards of a chemical must revise the label within six months.

Employer Responsibilities

Employers are responsible for maintaining the labels on the containers, including, but not limited to, tanks, totes, and drums. This means that labels must be maintained on chemicals in a manner which continues to be legible and the pertinent information (such as the hazards and directions for use) does not get defaced (i.e., fade, get washed off) or removed in any way.

The employer is not responsible for updating labels on shipped containers, even if the shipped containers are labeled under HazCom 1994. The employer must relabel items if the labels are removed or defaced. However, if the employer is aware of newly-identified hazards that are not disclosed on the label, the employer must ensure that the workers are aware of the hazards as discussed below under workplace labels.

Workplace Labels

OSHA has not changed the general requirements for workplace labeling. Employers have the option to create their own workplace labels. They can either provide all of the required information that is on the

label from the chemical manufacturer or, the product identifier and words, pictures, symbols or a combination thereof, which in combination with other information immediately available to employees, provide specific information regarding the hazards of the chemicals.

If an employer has an in-plant or workplace system of labeling that meets the requirements of HazCom 1994, the employer may continue to use this system in the workplace as long as this system, in conjunction with other information immediately available to the employees, provides the employees with the information on all of the health and physical hazards of the hazardous chemical. This workplace labeling system may include signs, placards, process sheets, batch tickets, operating procedures, or other such written materials to identify hazardous chemicals. Any of these labeling methods or a combination thereof may be used instead of a label from the manufacturer, importer or distributor as long as the employees have immediate access to all of the information about the hazards of the chemical. Workplace labels must be in English. Other languages may be added to the label if applicable.

If the employer chooses to use the pictograms that appear in Appendix C on the workplace (or in-plant) labels, these pictograms may have a black border, rather than a red border.

Employers may use additional instructional symbols that are not included in OSHA's HCS pictograms on the workplace labels. An example of an instructional pictogram is a person with goggles, denoting that goggles must be worn while handling the given chemical. Including both types of pictograms on workplace labels is acceptable. The same is true if the employer wants to list environmental pictograms or PPE pictograms from the HMIS to identify protective measures for those handling the chemical.

Employers may continue to use rating systems such as National Fire Protection Association (NFPA) diamonds or HMIS requirements for workplace labels as long as they are consistent with the requirements of the Hazard Communication Standard and the employees have immediate access to the specific hazard

information as discussed above. An employer using NFPA or HMIS labeling must, through training, ensure that its employees are fully aware of the hazards of the chemicals used.

If an employer transfers hazardous chemicals from a labeled container to a portable container that is only intended for immediate use by the employee who performs the transfer, no labels are required for the portable container.

Sample Labels

The following examples demonstrate how a manufacturer or importer may display the appropriate information on the label. As mentioned above, once the manufacturer determines the classification of the chemical (class and category of each hazard) using Appendices A and B, it would determine the required pictograms, signal words, hazard statements, and precautionary statements using Appendix C. The final step is to put the information on the label.

The examples below show what a sample label might look like under the revised HCS requirements. The examples break the labeling out into "steps" to show the order of information gathering and how label creation occurs. Step 1 is performing classification; step 2 is gathering full label information; and step 3 is creating the label.

These examples are for informational purposes only and are not meant to represent the only labels manufacturers, importers and distributors may create for these hazards.

Example 1: This example demonstrates a simple label.

The Substance:

HS85

Batch Number: 85L6543

Step 1: Perform Classification

Class: Acute Oral Toxicity; Category 4

Step 2: Gather Labeling Information

Pictograms:



Signal Word:

WARNING

Hazard Statements:

Harmful if Swallowed

Precautionary Statements:

Prevention:

- Wash hands and face thoroughly after handling.
- Do not eat, drink or smoke when using this product.

Response:

- If swallowed: Call a doctor if you feel unwell.²
- Rinse mouth

Storage:

None specified

Disposal:


- Dispose of contents/container in accordance with local/regional/national/international regulations.³

Step 3: Create the Label

Putting together the above information on HS85, a label might list the following information:

Example 1: HS85 Label

HS85
Batch number: 85L6543



Warning
Harmful if swallowed

Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Dispose of contents/container in accordance with local, state and federal regulations.

First aid:
If swallowed: Call a doctor if you feel unwell. Rinse mouth.

GHS Example Company, 123 Global Circle, Anyville, NY 130XX Telephone (888) 888-8888

² The manufacturer of this chemical determined that calling a doctor was the most appropriate emergency medical advice; therefore, it is listed as part of the first-aid procedures.

³ The downstream users must familiarize themselves with the proper disposal methods in accordance with local, regional, state and federal regulations. It is impractical to expect the label preparer to list all potential regulations that exist.

Example 2: This example demonstrates a more complex label.

Example 2 is for a substance that is a severe physical and health hazard. For shipping packages of chemicals that will be transported in the United States (i.e., drums, totes, tanks, etc.), the U.S. DOT requires a DOT label(s) on the outside container(s) for hazardous chemicals. Two versions of this label are presented below to demonstrate the difference between an OSHA label with pictograms from the HCS and a DOT label required for transport of a shipping container.

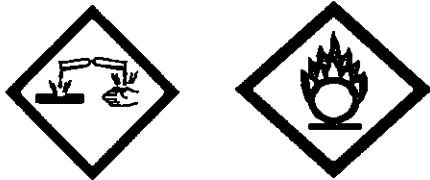
The Substance:

OXI252 (disodiumflammy)
CAS number: 111-11-11xx

Step 1: Perform Classification

Class: Oxidizing Solid, Category 1
Class: Skin Corrosive, Category 1A

Step 2: Gather Labeling Information
Pictograms:



Signal Word:
DANGER

Hazard Statements:

- May cause fire or explosion; strong oxidizer
- Causes severe skin burns and eye damage

Precautionary Statements:

Prevention:

- Keep away from heat.
- Keep away from clothing and other combustible materials.
- Take any precaution to avoid mixing with combustibles.
- Wear protective neoprene gloves, safety goggles and face shield with chin guard.
- Wear fire/flame resistant clothing.
- Do not breathe dust or mists.
- Wash arms, hands and face thoroughly after handling.

Response:

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- Immediately call poison center.⁴

Specific Treatment:

Treat with doctor-prescribed burn cream.⁵

In case of fire:

Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Storage:

Store locked up.

Disposal:

- Dispose of contents/container in accordance with local/regional/national/international regulations.³

Step 3: Create the Label



Putting together the above information on OXI252, a label might list the following information:

⁴ In this example, the manufacturer determined that calling a poison control center is the most appropriate emergency medical advice.

⁵ Not all SDSs will have direction for "specific treatment" on the label. This is only if the manufacturer specifically notes a certain treatment that needs to be used to treat a worker who has been exposed to this chemical.

Example 2A: OXI252 Label inner package label with OSHA pictograms

OXI252
(disodiumflammy)
CAS #: 111-11-11xx



Danger
May cause fire or explosion; strong oxidizer
Causes severe skin burns and eye damage

Keep away from heat. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective neoprene gloves, safety goggles and face shield with chin guard. Wear fire/flame resistant clothing. Do not breathe dust or mists. Wash arms, hands and face thoroughly after handling. Store locked up. Dispose of contents and container in accordance with local, state and federal regulations.



First aid:
IF ON SKIN (or hair) or clothing⁶: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call poison center.
Specific Treatment: Treat with doctor-prescribed burn cream.

Fire:
In case of fire: Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Great Chemical Company, 55 Main Street, Anywhere, CT 064XX Telephone (888) 777-8888

Example 2B: OXI252 Label meeting DOT requirements for shipping⁷

OXI252
(disodiumflammy)
CAS #: 111-11-11xx



Danger
May cause fire or explosion; strong oxidizer
Causes severe skin burns and eye damage

Keep away from heat. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective neoprene gloves, safety goggles and face shield with chin guard. Wear fire/flame resistant clothing. Do not breathe dust or mists. Wash arms, hands and face thoroughly after handling. Store locked up. Dispose of contents and container in accordance with local, state and federal regulations.

First aid:
IF ON SKIN (or hair) or clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call poison center.
Specific Treatment: Treat with doctor-prescribed burn cream.

Fire:
In case of fire: Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

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⁶ There are occasions where label preparers may combine statements on the label. In this case the similar statements were combined and the most stringent were listed. For example, the first-aid pre-

cautionary statements were combined for exposure to skin, hair and clothing.

⁸ ⁷ DOT Labels must comply with the size requirements presented in 49 CFR 172.

For more detailed information about labels and Safety Data Sheets (SDSs) under the revised Hazard Communication Standard, please refer to 29 CFR 1910.1200 - paragraphs (f) and (g), and Appendix C.

The revised Hazard Communication Standard and additional guidance materials are available on OSHA's Hazard Communication page, located at: www.osha.gov/dsg/hazcom/index.html.

Disclaimer: This OSHA Brief provides a general overview of the label requirements in the Hazard Communication Standard (see 29 CFR 1910.1200(f) and Appendix C of 29 CFR 1910.1200). It does not alter or determine compliance responsibilities in the standard or the Occupational Safety and Health Act of 1970. Since interpretations and enforcement policy may change over time, the reader should consult current OSHA interpretations and decisions by the Occupational Safety and Health Review Commission and the courts for additional guidance on OSHA compliance requirements.

This is one in a series of informational briefs highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)



3-IN-ONE.



Safety Data Sheet



1 - Identification

Product Name: 3-IN-ONE® Telescoping Spout Multi-Purpose Oil	Manufacturer: WD-40 Company
Product Use: Lubricant	Address: 9715 Businesspark Avenue San Diego, California, USA 92131
Restrictions on Use: None identified	Telephone:
SDS Date Of Preparation: July 18, 2018	Emergency: 1-888-324-7596
	Information: 1-888-324-7596
	Chemical Spills: 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)

2 – Hazards Identification

Hazcom 2012/GHS Classification: Not hazardous
Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling.
Label Elements: None Required

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
Severely Hydrotreated Heavy Naphthenic Oil	64742-52-5	>97	Not hazardous
Naphtha, petroleum	64742-47-8	<2	Aspiration Toxicity Category 1
Non-Hazardous Ingredients	Mixture	<3	Not Hazardous

Note: The exact percentages are a trade secret.

4 – First Aid Measures

Ingestion (Swallowed): While aspiration is unlikely due to viscosity, DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.
Eye Contact: Flush thoroughly with water. Get medical attention if irritation persists.
Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.
Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.
Signs and Symptoms of Exposure: May cause mild eye irritation. Prolonged or repeated skin contact may cause mild irritation and defatting dermatitis.
Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.
Specific Hazards Arising from the Chemical: Slightly combustible liquid. If heated above the flashpoint, will release flammable vapors that can present a fire or explosion hazard.
Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing in areas where chemicals are used and stored. Cool fire-exposed containers with water.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

Methods and Materials for Containment/Cleanup: Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing oil mists. Use with adequate ventilation. Keep away from heat, hot surfaces and open flames. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children.

Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. NFPA Class IIIB Liquid.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
Severely Hydrotreated Heavy Naphthenic Oil	5 mg/m ³ TWA ACGIH TLV (Inhalable) 5 mg/m ³ TWA OSHA PEL
Naphtha, petroleum	1200 mg/m ³ TWA (manufacturer recommended)
Non-Hazardous Ingredients	None Established

The Following Controls are Recommended for Normal Consumer Use of this Product

Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact.

Skin Protection: Avoid prolonged skin contact. Wash hands with soap and water after use.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Skin Protection: Wear chemical resistant gloves.

Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Appearance:	Clear amber liquid	Flammable Limits:	Not determined
Odor:	Faint citronella odor	Vapor Pressure:	Not Determined
Odor Threshold:	Not established	Vapor Density:	Not Determined
pH:	Not Applicable	Relative Density:	0.866-0.923 @ 20°C
Melting/Freezing Point	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	>550°F	Partition Coefficient; n-octanol/water:	Not Determined
Flash Point:	Greater than 305°F Tag Open Cup	Autoignition Temperature:	Not Determined
Evaporation Rate:	Not Determined	Decomposition Temperature:	Not Determined

Flammability (solid, gas)	Not applicable	Viscosity:	112 SUS (23.31 cSt) @ 100°F
VOC:	0%	Pour Point:	Not Determined

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions
Chemical Stability: Stable
Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.
Conditions to Avoid: Avoid heat, flames and other sources of ignition.
Incompatible Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:
Inhalation: High concentrations of oil mists may cause nasal and respiratory irritation.
Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.
Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.
Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic Effects: None expected.
Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.
Reproductive Toxicity: None of the components is considered a reproductive hazard.

Numerical Measures of Toxicity:
The oral toxicity of this product is estimated to be greater than 5,000 mg/kg and the dermal toxicity greater than 2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria.

12 – Ecological Information

Ecotoxicity: No specific aquatic toxicity data is currently available, however components of this product are not expected to be harmful to aquatic organisms
Persistence and Degradability: Component are not readily biodegradable.
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available
Other Adverse Effects: None known

13 - Disposal Considerations

If this product becomes a waste, it would not be expected to meet the criteria of a RCRA of a hazardous waste. However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Dispose in accordance with federal, state, and local regulations.

14 – Transportation Information

DOT Surface Shipping Description: Not Regulated
IMDG Shipping Description: Not Regulated
ICAO Shipping Description: Not Regulated
NOTE: WD-40 does not test containers to assure that they can withstand the pressure change without leakage when transported by air. We do not recommend that our products be transported by air unless a specific review is conducted.

15 – Regulatory Information

U.S. Federal Regulations:

CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Non-Hazardous.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List, Canadian Non-Domestic Substances List, or exempt from notification

Canadian WHMIS Classification: Not a controlled product.

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

16 – Other Information:

HMIS Hazard Rating:

Health – 1 (slight hazard), Fire Hazard – 1 (slight hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: July 18, 2018

Supersedes: July 31, 2014

Revision Summary: Address and telephone number update in Section 1.

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed By: I. Kowalski

Regulatory Affairs Manager

2051100/No.0040504

SAFETY DATA SHEET

001

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name ACETYLENE

Synonym(s) 001 - SDS NUMBER • DISSOLVED ACETYLENE • ETHYNE • PRODUCT CODES: 040, 041

1.2 Uses and uses advised against

Use(s) FUEL • INDUSTRIAL APPLICATIONS

1.3 Details of the supplier of the product

Supplier name BOC LIMITED (AUSTRALIA)

Address 10 Julius Avenue, North Ryde, NSW, 2113, AUSTRALIA

Telephone 131 262, (02) 8874 4400

Fax 132 427 (24 hours)

Website <http://www.boc.com.au>

1.4 Emergency telephone number(s)

Emergency 1800 653 572 (24/7) (Australia only)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO AUSTRALIAN WHS REGULATIONS

GHS classification(s) Gases Under Pressure: Dissolved gas
Flammable Gases: Category 1

2.2 Label elements

Signal word DANGER

Pictogram(s)



Hazard statement(s)

H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.

Prevention statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Response statement(s)

P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 Eliminate all ignition sources if safe to do so.

Storage statement(s)

P410 + P403 Protect from sunlight. Store in a well-ventilated place.

Disposal statement(s)

None allocated.

PRODUCT NAME **ACETYLENE**

2.3 Other hazards

Asphyxiant. Effects are proportional to oxygen displacement.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content (v/v)
ACETYLENE	74-86-2	200-816-9	>98%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye	Adverse effects not expected from this product.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use an Air-line respirator or Self Contained Breathing Apparatus (SCBA). Be aware of possible explosive atmospheres. Apply artificial respiration if not breathing. Give oxygen if available. For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor.
Skin	Adverse effects not expected from this product.
Ingestion	Ingestion is not considered a potential route of exposure.
First aid facilities	No information provided.

4.2 Most important symptoms and effects, both acute and delayed

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. Victim may not be aware of asphyxiation. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.

4.3 Immediate medical attention and special treatment needed

Treat for asphyxia.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Stop flow of gas if safe to do so, such as by slowly closing the cylinder valve. If the gas source cannot be isolated, do not extinguish the flame, since re-ignition and explosion could occur. Await arrival of emergency services or manufacturer's advisor. Drench and cool cylinders with water spray from protected area at a safe distance. If it is absolutely necessary to extinguish the flame, use only a dry chemical powder extinguisher. Do not move cylinders for at least 24 hours. Avoid shock and bumps to cylinders.

5.2 Special hazards arising from the substance or mixture

Extremely flammable. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones etc. when handling.

5.3 Advice for firefighters

Temperatures in a fire may cause cylinders to rupture and internal pressure relief devices to be activated. Cool cylinders or containers exposed to fire by applying water from a protected location. Do not approach cylinders or containers suspected of being hot. This material is capable of forming explosive mixtures in air.

5.4 Hazchem code

2SE

2 Fine Water Spray.

S Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Dilute spill and run-off.

E Evacuation of people in and around the immediate vicinity of the incident should be considered.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

If the cylinder is leaking, evacuate area of personnel. Inform manufacturer/supplier of leak. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Eliminate all sources of ignition. Consider the risk of potentially explosive atmospheres.

PRODUCT NAME ACETYLENE

6.2 Environmental precautions

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.3 Methods of cleaning up

Carefully move material to a well ventilated remote area, then allow to discharge if safe to do so. Do not attempt to repair leaking valve or cylinder safety devices.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use of safe work practices are recommended to avoid inhalation. Do not drag, drop, slide or roll cylinders. The uncontrolled release of a gas under pressure may cause physical harm. Use a suitable hand truck for cylinder movement. Never open an acetylene cylinder valve without the regulator attached. Gas regulator of suitable pressure and flow rating fitted to cylinder and manifold with low pressure gas distribution equipment which controls fuel gas mixture and flame. The regulator and other equipment must be compatible with the product and suited for the particular use. Never "sniff" acetylene as it may ignite spontaneously. Instead, carefully inspect the outlet and if there are any signs of dirt, blow it out with a jet of clean compressed air or nitrogen.

7.2 Conditions for safe storage, including any incompatibilities

Do not store near incompatible substances and sources of ignition. Cylinders should be stored: upright, prevented from falling, in a secure area; below 45°C, in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits. Post "No Smoking or Open Flames" signs in the storage areas. Refer to applicable legislation on flammable storage quantity restrictions. Never transfer acetylene to another cylinder or other container.

7.3 Specific end use(s)

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Acetylene	SWA (AUS)	Asphyxiant			

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls Provide suitable ventilation to minimise or eliminate exposure. Confined areas (e.g. tanks) should be adequately ventilated or gas tested. Flammable/explosive vapours may accumulate in poorly ventilated areas.

PPE

- Eye / Face** Wear safety glasses.
- Hands** Wear leather or cotton gloves.
- Body** Wear coveralls and safety boots.
- Respiratory** If using product in a confined area, wear an Air-line respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	COLOURLESS GAS
Odour	GARLIC-LIKE ODOUR
Flammability	EXTREMELY FLAMMABLE
Flash point	< 23°C
Boiling point	-84°C
Melting point	NOT AVAILABLE
Evaporation rate	NOT APPLICABLE
pH	NOT APPLICABLE
Vapour density	0.906 (Air = 1)
Specific gravity	NOT APPLICABLE
Solubility (water)	SOLUBLE
Vapour pressure	4700 kPa @ 25°C
Upper explosion limit	80 % to 85 %
Lower explosion limit	2.5 %
Partition coefficient	NOT AVAILABLE
Autoignition temperature	305°C
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

9.2 Other information

Critical temperature	36.3°C (dissolved in acetone and porous medium)
Cylinder pressure (when full)	1550 kPa @ 15°C
% Volatiles	100 %
Critical pressure	6,242 kPa

10. STABILITY AND REACTIVITY

10.1 Reactivity

Forms explosive acetylides with copper, silver and mercury. Do not use alloys containing more than 65% copper.

10.2 Chemical stability

Stable under recommended conditions of storage. However, sensitive to heat or shock and may become explosive.

10.3 Possibility of hazardous reactions

Polymerizes with evolution of heat. Avoid contact with curing agents, accelerators, and/or initiators.

10.4 Conditions to avoid

Avoid shock, friction, heavy impact, heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), copper, copper alloys (>70% copper), silver and mercury to form explosive acetylides. May decompose violently at high temperatures and/or pressures or in the presence of a catalyst. Hazardous by-products may be produced when this gas/gas mixture is used in welding, cutting and associated processes.

10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met.
Skin	Not classified as a skin irritant.
Eye	Not classified as an eye irritant.
Sensitization	Not classified as causing skin or respiratory sensitisation.
Mutagenicity	Not classified as a mutagen.
Carcinogenicity	Not classified as a carcinogen.

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Reproductive Not classified as a reproductive toxin.
STOT – single exposure Asphyxiant. Effects are proportional to oxygen displacement. Over exposure may result in dizziness, drowsiness, weakness, fatigue, breathing difficulties and unconsciousness.
STOT – repeated exposure Not classified as causing organ effects from repeated exposure.
Aspiration Not classified as causing aspiration.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No ecological damage is expected to be caused by this product.

12.2 Persistence and degradability

This product is not readily biodegradable.

12.3 Bioaccumulative potential

This product is not expected to bioaccumulate.

12.4 Mobility in soil

Because of its high volatility, the product is unlikely to cause ground or water pollution.

12.5 Other adverse effects

No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal Cylinders should be returned to the manufacturer or supplier for disposal of contents.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	1001	1001	1001
14.2 Proper Shipping Name	ACETYLENE, DISSOLVED	ACETYLENE, DISSOLVED	ACETYLENE, DISSOLVED
14.3 Transport hazard class	2.1	2.1	2.1
14.4 Packing Group	None Allocated	None Allocated	None Allocated

14.5 Environmental hazards No information provided

14.6 Special precautions for user

Hazchem code 2SE
GTEPG 2A1
EMS F-D, S-U

Other information Ensure cylinder is separated from driver and that outlet of relief device is not obstructed.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Polson schedule	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).	
Classifications	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].	
Hazard codes	E	Explosive
	F+	Extremely flammable
Risk phrases	R5	Heating may cause an explosion.
	R6	Explosive with or without contact with air.
	R12	Extremely Flammable.
Safety phrases	S9	Keep container in a well ventilated place.
	S16	Keep away from sources of ignition - No smoking.
	S33	Take precautionary measures against static discharges.
Inventory listing(s)	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or are exempt.	

16. OTHER INFORMATION

Additional information	The storage of significant quantities of gas cylinders must comply with AS4332 The storage and handling of gases in cylinders. When using this gas/gas mixture for welding, cutting and associated processes, additional hazards may be generated by the process such as radiation, noise and fume. Risk assessments should be made for each activity to identify and quantify the individual hazards involved. Please refer to the relevant Safety Data Sheets for the welding consumables being used or, if available, the materials being welded.
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PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

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Abbreviations	ACGIH	American Conference of Governmental Industrial Hygienists
	CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
	CNS	Central Nervous System
	EC No.	EC No - European Community Number
	EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
	GHS	Globally Harmonized System
	GTEPG	Group Text Emergency Procedure Guide
	IARC	International Agency for Research on Cancer
	LC50	Lethal Concentration, 50% / Median Lethal Concentration
	LD50	Lethal Dose, 50% / Median Lethal Dose
	mg/m ³	Milligrams per Cubic Metre
	OEL	Occupational Exposure Limit
	pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
	ppm	Parts Per Million
	STEL	Short-Term Exposure Limit
	STOT-RE	Specific target organ toxicity (repeated exposure)
	STOT-SE	Specific target organ toxicity (single exposure)
	SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
	SWA	Safe Work Australia
	TLV	Threshold Limit Value
	TWA	Time Weighted Average

Report status This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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[End of SDS]



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M™ General Purpose Adhesive Cleaner PN 08987
MANUFACTURER: 3M
DIVISION: Automotive Aftermarket

ADDRESS: 3M Center
 St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 03/01/11
Supersedes Date: 08/10/09

Document Group: 07-3563-9

Product Use:
 Intended Use: Specialty Adhesive Remover (Automotive)
 Specific Use: Automotive Adhesive Remover

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
HYDROTREATED LIGHT NAPHTHA (PETROLEUM)	64742-49-0	30 - 60
XYLENE	1330-20-7	30 - 60
PROPANE	74-98-6	10 - 30
ETHYLBENZENE	100-41-4	7 - 13
TOLUENE	108-88-3	<= 0.76455
BENZENE	71-43-2	<= 0.042475

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol
Odor, Color, Grade: Clear spray with solvent odor
General Physical Form: Liquid
Immediate health, physical, and environmental hazards: Extremely flammable liquid and vapor. Aerosol container contains flammable material under pressure. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel

long distances along the ground or floor to an ignition source and flash back. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm. Contains a chemical or chemicals which can cause cancer.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Skin Contact:

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and may be fatal.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Prolonged or repeated exposure may cause:

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
BENZENE	71-43-2	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
BENZENE	71-43-2	Known human carcinogen	National Toxicology Program Carcinogens
BENZENE	71-43-2	Cancer hazard	OSHA Carcinogens
ETHYLBENZENE	100-41-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. Get immediate medical attention.

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	-42 °F [<i>Details: (Propellant)</i>]
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Extremely flammable liquid and vapor. Aerosol container contains flammable material under pressure. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available.

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel.

6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Contents may be under pressure. open carefully. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Do not pierce or burn container, even after use. No smoking while handling this material. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Aerosol container contains flammable gas under pressure. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid contact with oxidizing agents.

7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed. Do not store containers on their sides. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Provide appropriate local exhaust ventilation on open containers. If exhaust ventilation is not available, use appropriate respiratory protection. Do not use in a confined area or areas with little or no air movement. Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields
Indirect Vented Goggles

8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Fluoroelastomer
Polymer laminate

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges and P95 particulate prefilters
Half facepiece or fullface pressure demand self-contained breathing apparatus

Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
BENZENE	ACGIH	TWA	0.5 ppm	Skin Notation*
BENZENE	ACGIH	STEL	2.5 ppm	Skin Notation*
BENZENE	OSHA	TWA	1 ppm	29 CFR 1910.1028
BENZENE	OSHA	STEL	5 ppm	29 CFR 1910.1028
BENZENE	OSHA	TWA	10 ppm	
BENZENE	OSHA	CEIL	25 ppm	
ETHYLBENZENE	ACGIH	TWA	100 ppm	
ETHYLBENZENE	ACGIH	STEL	125 ppm	
ETHYLBENZENE	CMRG	TWA	25 ppm	
ETHYLBENZENE	CMRG	STEL	75 ppm	
ETHYLBENZENE	OSHA	TWA	435 mg/m3	
HYDROTREATED LIGHT NAPHTHA (PETROLEUM)	CMRG	TWA	50 ppm	
PROPANE	OSHA	TWA	1800 mg/m3	
TOLUENE	ACGIH	TWA	20 ppm	
TOLUENE	CMRG	STEL	75 ppm	Skin Notation*
TOLUENE	OSHA	TWA	200 ppm	
TOLUENE	OSHA	CEIL	300 ppm	
XYLENE	ACGIH	TWA	100 ppm	
XYLENE	ACGIH	STEL	150 ppm	
XYLENE	CMRG	TWA	50 ppm	

XYLENE	CMRG	STEL	75 ppm
XYLENE	OSHA	TWA	435 mg/m3

* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists
 CMRG: Chemical Manufacturer Recommended Guideline
 OSHA: Occupational Safety and Health Administration
 AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Aerosol
Odor, Color, Grade:	Clear spray with solvent odor
General Physical Form:	Liquid
Autoignition temperature	<i>No Data Available</i>
Flash Point	-42 °F [<i>Details: (Propellant)</i>]
Flammable Limits(LEL)	<i>No Data Available</i>
Flammable Limits(UEL)	<i>No Data Available</i>
Density	0.738 g/ml
Vapor Density	>=1 [<i>Ref Std: AIR=1</i>]
Vapor Pressure	50 psi [<i>Details: CONDITIONS: @ 70F</i>]
Specific Gravity	0.738 [<i>Ref Std: WATER=1</i>]
pH	<i>Not Applicable</i>
Melting point	<i>Not Applicable</i>
Solubility in Water	Nil
Evaporation rate	<i>No Data Available</i>
Hazardous Air Pollutants	92.6 % weight [<i>Test Method: Calculated</i>]
Volatile Organic Compounds	738 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Volatile Organic Compounds	100.0 % weight [<i>Test Method: calculated per CARB title 2</i>]
Kow - Oct/Water partition coef	<i>No Data Available</i>
Percent volatile	100 % weight
VOC Less H2O & Exempt Solvents	738 g/l [<i>Test Method: calculated SCAQMD rule 443.1</i>]
Viscosity	<i>No Data Available</i>

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

Heat
 Sparks and/or flames

10.2 Materials to avoid

Strong oxidizing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable), D018 (Benzene)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

60-4550-3068-8, 60-4550-4585-0, 60-9800-2679-7

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
ETHYLBENZENE	100-41-4	7 - 13
XYLENE	1330-20-7	30 - 60

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
XYLENE (Benzene, 1,4-dimethyl-)	1330-20-7	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
BENZENE	71-43-2	*Male reproductive toxin
BENZENE	71-43-2	**Carcinogen
BENZENE	71-43-2	*Developmental Toxin
ETHYLBENZENE	100-41-4	**Carcinogen
TOLUENE	108-88-3	*Female reproductive toxin
TOLUENE	108-88-3	*Developmental Toxin

* WARNING: contains a chemical or chemicals which can cause birth defects or other reproductive harm.

** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

WHMIS: Hazardous

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 4 Reactivity: 0 Special Hazards: None
Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification

Health: 2 Flammability: 4 Reactivity: 0 Protection: X - See PPE section.

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

Revision Changes:

- Copyright was modified.
- Section 3: Potential effects from eye contact was modified.
- Section 3: Potential effects from inhalation information was modified.
- Section 8: Eye/face protection information was modified.
- Section 8: Skin protection - recommended gloves information was modified.
- Section 8: Respiratory protection - recommended respirators information was modified.
- Section 14: Transportation legal text was modified.
- Section 3: Other health effects information was modified.
- Section 15: Inventories information was modified.
- Section 9: Density information was modified.
- Section 5: Flammable limits (UE) information was modified.
- Section 5: Flammable limits (LEL) information was modified.
- Section 9: Property description for optional properties was modified.
- Section 9: Flammable limits (LEL) information was modified.
- Section 9: Flammable limits (UEL) information was modified.
- Section 2: Ingredient table was modified.
- Section 15: EPCRA 313 information was modified.
- Section 8: Exposure guidelines ingredient information was modified.
- Section 3: Carcinogenicity table was modified.
- Section 15: California proposition 65 ingredient information was modified.
- Section 15: TSCA section 12[b] text was added.

Section 15: TSCA section 12[b] information was added.
Section 6: 6.2. Environmental precautions heading was added.
Section 6: 6.1. Personal precautions, protective equipment and emergency procedures heading was added.
Section 10.1 Conditions to avoid heading was added.
Section 10.2 Materials to avoid heading was added.
Section 6: Personal precautions information was added.
Section 6: Environmental procedures information was added.
Section 6: Methods for cleaning up information was added.
Section 10: Materials to avoid physical property was added.
Section 10: Conditions to avoid physical property was added.
Section 6: Clean-up methods heading was added.
Section 6: Release measures information was deleted.
Section 6: Release measures heading was deleted.
Section 10: Materials and conditions to avoid physical property was deleted.
Section 8: Exposure guidelines legend was deleted.

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3M MSDSs are available at www.3M.com



Prepared according to Global Harmonized System (GHS) standards

SECTION 1 CHEMICAL PRODUCT IDENTIFICATION

Polaris Sales Inc.
2100 Highway 55
Medina, MN 55340
Tel: 763-542-0500

Product Trade Name: Polaris AGL
CAS Number: Mixture
Synonyms/Other: N/A
Part Number(s): N/A
Recommended Use: Transmission Fluid
Restrictions on Use: Not Determined
Created Date: 2/5/2015
Preparation/Revision Date: 2/5/2015
Emergency Phone Number: 1-800-424-9300 (CHEMTREC)
SDS CODE: 13004

SECTION 2 HAZARD IDENTIFICATION

Appearance: Clear, Purple
Odor: Petroleum
Classification: This material is not considered to be hazardous according to the Globally Harmonized System of Classification and Labelling Chemicals (GHS), Third Revised Edition.
Target Organs: Not applicable.
Pictogram(s): None required.
Signal Word: None required.
Hazard Statement: Not required.
Other Hazards: Not determined.
Prevention: None required.
Response: None required.
Storage Procedures: None required.
Disposal: None required.
Other: See section 11 for complete health hazard information.

SECTION 3 COMPOSITION OF INGREDIENTS

No Hazardous Substance(s) or Complex Substance(s) Required for Disclosure.

The balance of components do not contribute to the overall classification of the fluid, according to the GHS Standard.

SECTION 4 FIRST AID MEASURES

Eye Contact: If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes, while holding the eyelids open. If eye irritation persists: Get medical advice/attention.
Skin Contact: Call a doctor if you feel unwell.
Inhalation: Get medical advice or attention if you feel unwell or are concerned.
Ingestion: If you feel unwell or concerned: Get medical advice/attention. Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.



Other: No additional information

SECTION 5 FIRE FIGHTING MEASURES

Flash Point: 238°C by Cleveland Open Cup Tester.
Flammable limits: Not determined.
Extinguishing media: Use dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire.
Special firefighting procedures: DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).
Unusual fire & explosion hazards: Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. High temperatures may create heavy flammable vapors that may settle along ground level and low spots to create an invisible fire hazard.
Byproducts of combustion: Fires involving this product may release oxides of carbon, phosphorus, nitrogen and sulfur; reactive hydrocarbons and irritating vapors.
Autoignition temperature: Not determined.
Explosion data: Not determined. Care should always be exercised in dust/mist areas.
Other: Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill control procedures (land): Immediately turn off or isolate any source of ignition (pilot lights, electrical equipment, flames, heaters, etc.). Evacuate area and ventilate. Personnel wearing proper protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways. Large spill, once contained, may be picked up using explosion proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers for disposal. If a large spill occurs notify appropriate authorities. In case of road spill or accident contact Chem-Trec (800-424-9300).
Spill control procedures (water): Try to contain large spills with floating booms to prevent spill from spreading. Remove from surface by skimming or with suitable adsorbents. If a large spill occurs notify appropriate authorities (normally the National Response Center or Coast Guard at 800-424-8802).
Waste disposal method: Do not empty into drains. All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. See Section 14.
Other: CAUTION - If spilled material is cleaned up using a regulated solvent, the resulting waste mixture will be regulated.

SECTION 7 HANDLING AND STORAGE

Handling procedures: Keep containers closed when not in use. Do not transfer to unmarked containers. Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld, or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.
Handling temperatures should not exceed 60°C (140°F) to minimize danger of burns. Open containers carefully in a well ventilated area or use appropriate respiratory protection. Wash thoroughly after handling.



Storage procedures: Store containers away from heat, sparks, open flame, or oxidizing materials. Extended storage at excessive temperatures may produce odorous and toxic fumes from product decomposition.

Additional information: No additional information.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product:

	OSHA TWA	OSHA STEL	ACGIH TWA
Contains highly refined petroleum oil	*5 mg/m ³ (PEL)	*10 mg/m ³	*5 mg/m ³ (TLV)

* Exposure limits not defined. Limits used are for, "oil mist".

TWA – Time Weighted Average is the employee’s average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.
 STEL – Short Term Exposure Limit is the employee’s 15-minute time weighted average exposure which shall not be exceeded at any time during a work day unless another time limit is specified.

All base oils, including additive carriers, contain <3.0% DMSO extractable material.

Personal protection: Applicable mainly to persons in repeated contact situations such as packaging of product, service/maintenance, and cleanup/spill control personnel.

Respiratory protection: None required if ventilation is adequate. Otherwise a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. Where misting may occur, wear an MSHA/NIOSH approved (or equivalent) half-mask form dust/mist air purifying respirator.

Eye protection: Eye protection is strongly recommended. Wear safety glasses with side shields or vented/splash proof goggles (ANSI Z87.1 or approved equivalent).

Hand protection: Impervious, chemically resistant gloves such as neoprene or nitrile rubber to avoid skin sensitization and absorption.

Other protection: Use of an apron and overboots of chemically impervious materials such as neoprene or nitrile rubber is recommended based on level of activity and exposure. If handling hot material use insulated protective equipment. Launder soiled clothes. Properly dispose of contaminated leather articles and other materials which cannot be decontaminated.

Local control measures: Use adequate ventilation when working with material in an enclosed area. Mechanical methods such as fume hoods or area fans may be used to reduce localized vapor/mist areas. If vapor or mist is generated when the material handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified exposure. Eyewash stations and showers should be available in areas where this material is used and stored.

Other: Consumption of food and drink should be avoided in work areas where product is present. Always wash hands and face with soap and water before eating, drinking or smoking.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, Purple

Odor: Petroleum

Odor threshold: Not determined.

pH: Not applicable.



Melting/Freezing point:	Not determined.
Initial boiling point:	Not determined.
Boiling range:	Not determined.
Flash point:	238°C.
Evaporation rate:	Not determined.
Flammability:	Not determined.
Upper flammable limit:	Not determined.
Lower flammable limit:	Not determined.
Vapor pressure:	Not determined.
Vapor density:	Not determined.
Relative density:	0.850 @ 15.6°C
Solubility:	Negligible in water, miscible in most petroleum solvents.
Partition Coefficient:	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity:	43 cSt at 40°C.
Other	Not applicable.

SECTION 10 STABILITY AND REACTIVITY

Reactivity

Chemical stability:	Material is chemically stable at room temperatures and pressure.
Hazardous polymerization:	Will not occur.
Conditions to avoid:	Avoid high temperatures and product contamination.
Incompatibility with other materials:	Avoid contact with acids and strong oxidizing materials.
Decomposition products:	Smoke, carbon monoxide, carbon dioxide, and other aldehydes of incomplete combustion. Oxides of carbon, nitrogen, and sulfur; reactive hydrocarbons and irritating vapors.
Other:	Not applicable.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity (LD50) *See note at the bottom of the section

Oral:	>5000 mg/kg
Dermal:	>5000 mg/kg
Inhalation:	>20.0 mg/l
Skin irritation:	Non-irritant
Eye irritation:	Non-irritant
Dermal sensitization:	Not expected to have a sensitizing effect.
Respiratory sensitization:	Not expected to have a sensitizing effect.
Aspiration Hazard:	Not applicable
Chronic Toxicity	
Mutagenicity:	Not suspected of causing genetic defects
Carcinogenicity:	Not suspected of causing cancer.
Reproductive toxicity:	Not expected to have adverse effects.
STOT-single exposure:	Not expected to have adverse effects.
STOT-repeated exposure:	Not expected to have long term adverse effects.
Other:	*All data in this section is based off calculations from Part 3 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) utilizing information from the constituent components.



SECTION 12

ECOLOGICAL INFORMATION

Environmental toxicity

Fish: > 100 mg/l.

Invertebrates: > 100 mg/l.

Aquatic plants: > 100 mg/l.

Microorganism: > 100 mg/l.

Persistence/Degradability: This product is not expected to be readily biodegradable.

Bioaccumulation: Not determined.

Mobility in soil: Not determined.

Other: All classifications are based on calculations in Part 4 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) utilizing information from the constituent components.

SECTION 13

DISPOSAL CONSIDERATIONS

Waste disposal: This product unadulterated by other materials can be classified as a non-hazardous waste. Depending on use, used product may be regulated. Dispose of in a licensed facility. Do not discharge product in to sewer system. Dispose of containers by crushing or puncturing, so as to prevent unauthorized use of used containers. Waste management should be in full compliance with federal, state, and local laws.

Other: The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate.

SECTION 14

TRANSPORT INFORMATION

Land Transport (DOT): Not Regulated.

Proper Shipping Name: Not applicable.

Land Transport (TDG): Not Regulated.

Proper Shipping Name: Not applicable.

Sea Transport (IMDG): Not Regulated.

Proper Shipping Name: Not applicable.

Air Transport (IATA): Not Regulated.

Proper Shipping Name: Not applicable.

Other: Not Regulated.

SECTION 15

REGULATORY INFORMATION

Federal Regulation

Clean water act/oil: Under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Control Act of 1990, this material is considered an oil. Any spill or discharges that produce a visible sheen or film on surface of water, or in waterways, ditches, or sewers leading to surface water must be reported. Contact the National Response Center at 800-424-8802.

TSCA: All components of this material are listed in the U.S. TSCA Inventory.

Other TSCA: Not applicable.



SARA title III:

Section 302/304 extremely hazardous substances:
None.

Section 311, 312 hazard categorization:

Acute (immediate health effects):	NO
Chronic (delayed health effects):	NO
Fire (hazard):	NO
Reactivity (hazard):	NO
Pressure (sudden release hazard):	NO

Section 313 toxic chemicals:

No components present are at or greater than the de minimis (minimum reportable) concentration requirements for reporting.

CERCLA:

For stationary/moving sources – reportable quantity (due to): Not hazardous due to the petroleum exclusion.

State Regulations

Right-to-know

Not determined.

Other:

A release of this product, as supplied, is exempt from reporting under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). However, releases may be reportable to the Nation Response Center under the Clean Water Act, 33 U.S.C. 1321(b)(3) and (5) - see head of Section 15. Failure to report may result in substantial civil and criminal penalties.

Recommend contacting the local authorities in the event of any type of spill to determine local reporting requirements and also to aid in the cleanup.

SECTION 16 OTHER INFORMATION

	NFPA 704	NPCA-HMIS	KEY
HEALTH:	1	1	0 = Minimal
FIRE:	1	1	1 = Slight
REACTIVITY:	0	0	2 = Moderate
SPECIFIC HAZARD:	None	N/A	3 = Serious
PROTECTION INDEX:	N/A	B	4 = Severe

Version: I

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Revisions / Comments: None.

SAFETY DATA SHEET

COYOTE CHEMICAL COMPANY

1111 N. Norbeck Street, Vermillion, SD 57069

1-800-658-3438

SECTION 1. Identification of the Product and of the Company

Product Name: Alum-Anew

UN/ID Number: 2922

Recommended Use: Aluminum Cleaning

Restrictions on Use: Use only as directed on label

Date of Issue: 5/14/15

Emergency Telephone Numbers

PERS: 800-633-8253

SECTION 2. Hazards Identification

EMERGENCY OVERVIEW

* Hazard Determination System (HDS): Health, Flammability, Reactivity

1

Hazard Category /GHS - Classification

Signal Word: DANGER!

Acute Toxicity- Dermal	Category 1
Acute Toxicity- Oral	Category 1
Acute Toxicity- Inhalation	Category 1
Skin Corrosion	Category 1C
Serious Eye Damage	Category 1
Carcinogenicity	Category 1A
Specific Target Organ Toxicity (Single Exposure)	Category 1
Specific Target Organ Toxicity (Repeated or Prolonged Exposure)	Category 1
Corrosive To Metals	Category 1

Hazard Pictograms:



Hazard Statements:

Fatal in contact with skin

Toxic if swallowed

Toxic if inhaled

Causes severe skin burns and eye damage

Causes damage to organs (through prolonged or repeated exposure)

Causes serious eye damage

May cause cancer

Causes damage to organs

May be corrosive to metals

Precautionary Statements - Prevention:

Do not get in eyes, on skin, or on clothing	Avoid breathing fumes, vapors, mist or spray
Wash thoroughly after handling	Use only with adequate ventilation
Do not eat, drink or smoke when using this product	Follow instructions for use
Wear protective clothes, clothing, and eye protection	Keep in original container
Do not handle until all precautions are in use	

Precautionary Statements - Response:

Immediately call a POISON CENTER or doctor/physician

IF ON SKIN: Gently wash with plenty of soap and water. Immediately remove contaminated clothing. seek medical attention if irritation persists.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

IF INHALED: Remove victim to fresh air. If trouble breathing persists seek medical attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: seek medical attention.

Precautionary Statements - Storage: Keep out of reach of children in a safe location. Keep container closed.

Precautionary Statements - Disposal: Dispose of contents and container according to state/local/ federal disposal regulations.

Hazards not otherwise classified (HNOC): This product can cause severe burns which may not be immediately visible or painful. May cause hypocalcemia (depletion of calcium in the body) which can be fatal. Special medical treatment is required.

SECTION 3. Composition/Information on Ingredients

NAME OF INGREDIENT	CAS NUMBER	% BY WEIGHT
Hydrofluoric Acid	6834-92-0	9%
Sulfuric Acid	111-76-2	6%
Alcohols, C9-11,ethoxylated	68439-46-3	2%

SECTION 4. First Aid Measures**First aid measures for different routes of exposure**

Eye Contact: Immediate response is required. Rinse with plenty of water and seek medical attention.

Skin Contact: Immediate response is required. Immediately wash affected area with plenty of water and remove all contaminated clothing. Immerse the burned area in a .13% iced Benzalkonium Chloride , alternately apply a 2.5% topical calcium gluconate gel to the area. Seek medical attention.

Inhalation: Move to fresh air and call a physician. Physician may treat victim with oxygen nebulizer and calcium gluconate 2.5% in saline.

Ingestion: If swallowed immediate response is required. Do not induce vomiting. Never give anything by mouth to an unconscious person. Drink several glasses of water or milk. If possible give several ounces of any antacid containing calcium.

Most important symptoms/effects, acute and delayed: The effects of hydrofluoric acid may not occur immediately upon contact or exposure.

Notes to Physicians: Treat symptomatically following guidelines for hydrofluoric acid listed above.

SECTION 5. Fire Fighting Measures

Suitable extinguishing media: Dry chemical, CO₂, alcohol-resistant foam.

Unsuitable Extinguishing media: Do not use water spray.

Special Hazard: During fire hazardous gasses may form.

Special protective equipment for fire-fighters: As in any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific hazards arising from the chemical: Thermal decomposition may lead to the release of toxic vapors which are not to be breathed. This product causes skin, eye and mucous membrane burns.

SECTION 6. Accidental Release Measures**Personal precautions, protective equipment and emergency procedures**

Personal precautions: Use proper protective equipment. Avoid contact with skin, eyes, clothing.

Advice for emergency responders: Use personal protective equipment as required.

Methods and materials for containment and cleaning up

Methods for containment: Absorb with earth, sand or other non combustible material and transfer to containers for later disposal.

Methods for cleaning up: Contain spillage, and then collect with noncombustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. Handling and Storage**Precautions for safe handling**

Advice on safe handling: Use personal protective equipment as required. Keep container closed when not in use. Ensure all labels remain in good condition and adhered to the container. Keep out of reach of children

Conditions for safe storage, including incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well ventilated place.

Incompatible products: Oxidizing agents, strong acids.

SECTION 8. Exposure Control / Personal Protection**Exposure Guidelines**

Chemical	OSHA PEL	ACGIH TLV
Hydrofluoric Acid	2.5 mg/m ³	2 ppm
Sulfuric Acid	1 mg/m ³	.02 mg/m ³
Alcohols, C9-11,ethoxylated	Not determined	Not determined

Appropriate engineering controls: Ensure adequate ventilation. Eye wash station and shower.

Personal Protective Equipment

Eye protection: Use appropriate eye protection goggles or face shield when handling material.

Hand protection: Chemical protective gloves required

Skin protection: Chemical resistant gloves. Avoid contact with skin.

Respiratory Protection: No special protective equipment required with adequate ventilation.

SECTION 9. Physical and Chemical Properties**Appearance****Physical state:** Liquid**Form:** Liquid**Color:** clear**Odor:** Strong acid**Odor threshold:** Not Available**PH:** 0-1 10% aqueous solution**Melting point/freeze point:** No information available**Flash Point:** Not applicable**Evaporation rate:** No information available**Flammability (solid, gas):**Not available**Upper/lower flammability or explosive limits****Flammability limit - lower %:** Not available**Flammability limit - Upper %:** Not applicable**Explosive limit- lower %:** Not available**Explosive limit- upper %:** Not available**Vapor pressure:** Not determined or unknown**Relative density:** Not available**Water solubility:** No information available**Auto ignition temperature:** Not available**Decomposition temperature:** Not available**Specific gravity:** 1.04**SECTION 10. Stability and Reactivity****Reactivity:** The product is stable and non reactive under normal conditions of use, storage and transport.**Chemical stability:** Material is stable under normal conditions.**Possibility of hazardous reactions:** Contact with incompatible materials**Conditions to avoid:** Contact with incompatible materials.**Incompatible materials:** Alkalis, carbonates, glass and silicate containing materials, oxidizing agents, sulfides.**Hazardous decomposition products:** fire can lead to the release of toxic gases.**SECTION 11. Toxicological information**

Chemical	LD 50 Oral	LD 50 Dermal	LC Inhalation
Hydrofluoric Acid	Not determined	Not determined	1278 ppm (rat) 1 hr.
Sulfuric Acid	2140 mg/kg (rat)	Not determined	347 ppm (rat) 1 hr.
Alcohols, C9-11,ethoxylated	Not determined	Not determined	Not determined

Information on likely routes of exposure**Ingestion:** Harmful if swallowed. Corrosive to esophagus, mucous membrane and stomach.**Inhalation:** Respiratory irritant.**Skin contact:** Causes burns, redness, irritation and itching which may not be immediate.

Hydrofluoric acid may cause internal tissue damage and hypocalcemia when it penetrates the skin.

Eye contact: Direct contact to eyes causes serious eye damage, redness, watering and blurry vision.

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity Note: The agencies below have listed strong inorganic acid mist, containing sulfuric acid as a known carcinogen.

<u>Chemical Name</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
Sulfuric Acid 7664-93-9	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1- Carcinogenic to Humans

OSHA Occupational Safety and Health Administration of the US Department of Labor

X- Present

NTP (National Toxicology Program)

Known - Known Carcinogen

STOT - Single Exposure May cause damage to organs

STOT - Repeated Exposure Causes damage to organs through prolonged or repeated exposure

Numerical Measures of Toxicity Not Determined

SECTION 12. Ecological Information**Eco toxicity**

<u>Chemical</u>	<u>Toxicity to Fish</u>	<u>Toxicity to Invertebrates</u>
Hydrofluoric Acid	60 mg/l freshwater fish	270 mg/l (48 h: Daphnia)
Sulfuric Acid	500 mg/l (96h: Brachydanio rerio)	29 mg/l (24 h: Daphnia)
Alcohols, C9-11,ethoxylated	Not determined	Not determined

Persistence and degradability: Readily biodegradable.

Bio accumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No other adverse environmental effects are expected from this product.

SECTION 13. Disposal Considerations

Waste treatment

Disposal Instructions: Dispose of contents in accordance with local/regional/national/international regulations.

Waste from residues / unused products: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging: Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA- Basis for Listing	RCRA- D Series Waste	RCRA- II Series Wastes
Hydrofluoric Acid 7664-39-3	U134	N/A	N/A	U134

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Hydrofluoric Acid 7664-39-3	Toxic / Corrosive

SECTION 14. Transportation Information

DOT **Proper Name:** Corrosive Liquid, Toxic, n.o.s. (Hydrofluoric and Sulfuric Acid)
Hazard Class: 8 **Subsidiary Hazard Class (6.1)**
UN Number: UN2922
Packing Group: II

IATA **Proper Name:** Corrosive Liquid, Toxic, n.o.s. (Hydrofluoric and Sulfuric Acid)
Hazard Class: 8 **Subsidiary Hazard Class (6.1)**
UN Number: UN2922
Packing Group: II

IMDG **Proper Name:** Corrosive Liquid, Toxic, n.o.s. (Hydrofluoric and Sulfuric Acid)
Hazard Class: 8 **Subsidiary Hazard Class (6.1)**
UN Number: UN2922
Packing Group: II

SECTION 15. Regulatory Information

International Inventories: Not determined

US Federal Regulations

SARA 313

Chemical Name	CAS NUMBER	% BY WEIGHT	SARA 313- Threshold Value%
Hydrofluoric Acid	6834-92-0	9%	1.0%
Sulfuric Acid	111-76-2	6%	1.0%

CWA (Clean Water Act)

Chemical Name	CAS NUMBER	CWA - Reportable Quantities	CWA - Hazardous Substances
Hydrofluoric Acid	6834-92-0	100 lbs.	X
Sulfuric Acid	111-76-2	1000 lbs.	X

CERCLA

Chemical Name	Hazardous Substances RQ	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hydrofluoric Acid 6834-92-0	100 lbs.	100 lbs.	RQ 100 lbs. final RQ RQ 45.4 kg. final RQ
Sulfuric Acid 111-76-2	1000 lbs.	1000 lbs.	RQ 1000 lbs. final RQ RQ 454 kg. final RQ

US Regulations

Chemical Name	California Proposition 65
Sulfuric Acid 111-76-2	Carcinogen

US State Right -to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrofluoric Acid 6834-92-0	X	X	X
Sulfuric Acid 111-76-2	X	X	X

SECTION 16. Other Information

Issue Date: 05-14-15

Revision Date: None

Version: #1

NFPA rating



Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of this publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



SAFETY DATA SHEET

1. Identification

Product identifier Air Brake Anti-Freeze & Conditioner

Other means of identification

Product code 05528, 05555

Recommended use Air brake anti-freeze

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.
Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300

Technical Assistance 800-521-3168

Customer Service 800-272-4620

24-Hour Emergency (CHEMTREC) 800-424-9300 (US)

703-527-3887 (International)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2

Health hazards Acute toxicity, oral Category 3

Acute toxicity, dermal Category 3

Acute toxicity, inhalation Category 3

Reproductive toxicity Category 2

Specific target organ toxicity, single exposure Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Suspected of damaging fertility or the unborn child. Causes damage to organs (eyes, central nervous system).

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If exposed or concerned: Get medical attention. In case of fire: Do not use water jet as an extinguisher, as this will spread the fire.
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Methanol		67-56-1	90 - 100

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Dizziness. Headache. Nausea, vomiting. Irritation of eyes and mucous membranes. Upper respiratory tract irritation. Skin irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewer, basements or confined areas.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Wash contaminated clothing before reuse. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methanol (CAS 67-56-1)	PEL	260 mg/m ³ 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	325 mg/m ³ 250 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
	TWA	260 mg/m3 200 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Methanol (CAS 67-56-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Methanol (CAS 67-56-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Methanol (CAS 67-56-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methanol (CAS 67-56-1) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Methanol (CAS 67-56-1) Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Rubber.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.
Form Liquid.
Color Colorless.

Odor Pungent. Alcoholic.

Odor threshold Not available.

pH Not available.

Melting point/freezing point -144 °F (-97.8 °C) estimated

Initial boiling point and boiling range 148.5 °F (64.7 °C) estimated

Flash point 54 °F (12.2 °C) Tag Closed Cup

Evaporation rate Fast.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	2.6 % estimated
Flammability limit - upper (%)	36 % estimated
Vapor pressure	133.2 hPa estimated
Vapor density	1.1 (air = 1)
Relative density	0.79
Solubility (water)	Completely soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	725 °F (385 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	99.9 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Toxic if swallowed. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.
Inhalation	Toxic if inhaled.
Skin contact	Toxic in contact with skin.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Dizziness. Headache. Nausea, vomiting. Irritation of eyes and mucous membranes. Upper respiratory tract irritation. Skin irritation.

Information on toxicological effects

Acute toxicity Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed.

Product	Species	Test Results
Air Brake Anti-Freeze & Conditioner		
Acute		
<i>Dermal</i>		
LD50	Rabbit	12816.9443 mg/kg estimated
<i>Inhalation</i>		
LC50	Rat	64084.7188 ppm, 4 hours estimated 83.981 mg/l, 4 hours estimated
<i>Oral</i>		
LD50	Human	50.0662 mg/kg estimated
	Rat	5627.0654 mg/kg estimated
LDL0	Human	300.3971 mg/kg estimated

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	Causes damage to organs: Eyes. Central nervous system. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be an aspiration hazard.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results	
Air Brake Anti-Freeze & Conditioner			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	16121.3125 mg/l, 48 hours estimated
Fish	LC50	Fish	22749.9609 mg/l, 96 hours estimated
Components	Species	Test Results	
Methanol (CAS 67-56-1)			
Aquatic			
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	18000 - 20000 mg/l, 96 hours
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	18000 - 20000 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Partition coefficient n-octanol / water (log Kow)	
Methanol	-0.77
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products	If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F F003: Waste Non-halogenated Solvent - Spent Non-halogenated Solvent
US RCRA Hazardous Waste U List: Reference	
Methanol (CAS 67-56-1)	U154
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1230
UN proper shipping name	Methanol
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP2
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1230
UN proper shipping name	Methanol
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1230
UN proper shipping name	METHANOL
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
SARA 304 Emergency release notification	Not regulated.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed.
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance	Methanol (CAS 67-56-1)
CERCLA Hazardous Substance List (40 CFR 302.4)	Methanol (CAS 67-56-1)
CERCLA Hazardous Substances: Reportable quantity.	Methanol (CAS 67-56-1) 5000 LBS
	Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Methanol (CAS 67-56-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Immediate Hazard - Yes

Hazard categories Delayed Hazard - Yes

Fire Hazard - Yes

Pressure Hazard - No

Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Methanol (CAS 67-56-1)

US. Massachusetts RTK - Substance List

Methanol (CAS 67-56-1)

US. Pennsylvania Worker and Community Right-to-Know Law

Methanol (CAS 67-56-1)

US. Rhode Island RTK

Methanol (CAS 67-56-1)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Methanol (CAS 67-56-1)

Listed: March 16, 2012

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 100 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products Not regulated

VOC content (CA) 100 %

VOC content (OTC) 100 %


International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	03-24-2015
Prepared by	Allison Cho
Version #	01
Further information	CRC # 620B
HMIS® ratings	Health: 2* Flammability: 3 Physical hazard: 0 Personal protection: B
NFPA ratings	Health: 2 Flammability: 3 Instability: 0
NFPA ratings	

Disclaimer CRC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.



Air Tool Lubricant

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 01/05/2016 Revision date: 01/05/2016 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Air Tool Lubricant
Product code : 16-ATL, 128-ATL, 5-ATL & 55-ATL

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Multi-Purpose Lubricant

1.3. Details of the supplier of the safety data sheet

The Blaster Corporation
8500 Sweet Valley Drive
Valley View, Ohio 44125 - USA
T (216) 901-5800 - F (216) 901-5801
www.blasterproducts.com

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin irritation 2
Specific target organ toxicity - Repeated exposure 2
Aspiration toxicity 1

2.2. Label elements

GHS-US labelling

This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: Causes skin irritation. May cause damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways.

Precautionary statements (GHS-US)

: Wash hands thoroughly after handling. Wear protective gloves. Do not breathe dust/fume/gas/mist/vapors/spray. Get medical advice/attention if you feel unwell. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
White mineral oil, petroleum	(CAS No) 8042-47-5	60 - 100	Not classified
Distillates, petroleum, hydrotreated middle	(CAS No) 64742-46-7	7 - 13	Flam. Liq. 4 Acute Tox. 4 (Inhalation: dust, mist) Skin Irrit. 2 STOT RE 2 Asp. Tox. 1
Distillates, petroleum, hydrotreated light naphthenic	(CAS No) 64742-53-6	3 - 7	Asp. Tox. 1 Acute Tox. 4 (dust/mist) Carc. 1B

* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Air Tool Lubricant

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause respiratory tract irritation.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water fog, carbon dioxide, dry chemical or alcohol foam.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon, hydrocarbons.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/ spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
- Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

Not available.

Air Tool Lubricant

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

White mineral oil, petroleum (8042-47-5)		
USA ACGIH	ACGIH TWA	Not applicable
USA OSHA	OSHA PEL (TWA)	Not applicable
Distillates, petroleum, hydrotreated middle (64742-46-7)		
USA ACGIH	ACGIH TWA	Not applicable
USA OSHA	OSHA PEL (TWA)	Not applicable
Distillates, petroleum, hydrotreated light naphthenic (64742-53-6)		
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³ (mist)
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ (mist)

8.2. Exposure controls

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection	: Wear chemically resistant protective gloves.
Eye protection	: Safety glasses or goggles are recommended when using product.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Oily
Colour	: No data available
Odour	: Petroleum
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: < 1
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 371.1 - 460 °C (700 - 860 °F)
Flash point	: > 182.2 °C (>360 °F)
Auto-ignition temperature	: > 315.6 °C (>600 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: > 1 (Air = 1)
Relative density	: 0.86
Solubility	: Insoluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 19 cSt @ 40°C (104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

Air Tool Lubricant

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat, Excessive water.

10.5. Incompatible materials

Strong oxidizing agents. Strong reducing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon, hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Air Tool Lubricant	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	No data available

White mineral oil, petroleum (8042-47-5)	
LD50 oral rat	>5000 mg/kg
LD50 dermal rabbit	>2000 mg/kg
LC50 inhalation rat	> 5 mg/l/4h

Distillates, petroleum, hydrotreated middle (84742-46-7)	
LD50 oral rat	7400 mg/kg
LD50 dermal rabbit	>2000 mg/kg
LC50 inhalation rat	4.6 mg/l/4h

Distillates, petroleum, hydrotreated light naphthenic (84742-53-6)	
LD50 oral rat	>5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	2.18 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Air Tool Lubricant

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Air Tool Lubricant	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Air Tool Lubricant	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : No additional information available

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. US State regulations

Air Tool Lubricant	
State or local regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information

Indication of changes : None.

Date of issue : 01/05/2016

Other information : None.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Ameriguard GL-5 SAE 80W90 Gear Oil GRP 1
Product Code: AG-8090-XX

COMPANY IDENTIFICATION

Company:

SAPP BROS., Inc.,
9915 S. 148th Street
Omaha, Nebraska 68138 USA

Emergency Phone:

(800) 484-9300 (202) 483-7616 (CHEMTREC)

Poison Control Center:

(800) 222-1222

Information Phone:

(800) 233-4059 (402) 895-2202

MSDS Internet Address:

<http://www.sappbros.net>

SECTION 2

HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

ENVIRONMENTAL HAZARDS

No significant hazards.

NFPA Hazard ID:

Health: 0

Flammability: 1

Reactivity: 0

HMIS Hazard ID:

Health: 0

Flammability: 1

Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3

COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
OLEFIN SULFIDE	68937-96-2	1 - < 5%	H227, H317, H413
PHOSPHORIC ACID ESTERS, AMINE SALT		1 - < 2.5%	H226, H302, H317, H318, H401, H411

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Incomplete combustion products, Sulfur oxides, Aldehydes, Smoke, Fume, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: >164°C (327°F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep away from incompatible materials.

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following are recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction), 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Color: Brown
Odor: Characteristic
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.899
Flammability (Solid, Gas): N/A
Flash Point [Method]: >164°C (327°F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: N/D
Boiling Point / Range: > 316°C (600°F) [Estimated]
Decomposition Temperature: N/D
Vapor Density (Air = 1): > 2 at 101 kPa [Estimated]
Vapor Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated]
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5 [Estimated]
Solubility in Water: Negligible
Viscosity: 149.7 cSt (149.7 mm²/sec) at 40 °C | 15.2 cSt (15.2 mm²/sec) at 100°C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
Pour Point: -30°C (-22°F)
DMSO Extract (mineral oil only), IP-346: < 3 %wt

SECTION 10

STABILITY AND REACTIVITY

REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11

TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class

Conclusion / Remarks

Inhalation

Acute Toxicity: No end point data for material.

Irritation: No end point data for material.

Minimally Toxic. Based on assessment of the components.

Negligible hazard at ambient/normal handling temperatures.

Ingestion

Acute Toxicity: No end point data for material.

Minimally Toxic. Based on assessment of the components.

Skin

Acute Toxicity: No end point data for material.

Skin Corrosion/Irritation: No end point data for material.

Minimally Toxic. Based on assessment of the components.

Negligible irritation to skin at ambient temperatures. Based on assessment of the components.

Eye

Serious Eye Damage/Irritation: No end point data for material.

May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.

Sensitization

Respiratory Sensitization: No end point data for material.

Skin Sensitization: No end point data for material.

Not expected to be a respiratory sensitizer.

Not expected to be a skin sensitizer. Based on assessment of the components.

Aspiration: Data available.

Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.

Germ Cell Mutagenicity: No end point data for material.

Not expected to be a germ cell mutagen. Based on assessment of the components.

Carcinogenicity: No end point data for material.

Not expected to cause cancer. Based on assessment of the components.

Reproductive Toxicity: No end point data for material.

Not expected to be a reproductive toxicant. Based on assessment of the components.

Lactation: No end point data for material.

Not expected to cause harm to breast-fed children.

Specific Target Organ Toxicity (STOT)

Single Exposure: No end point data for material.

Repeated Exposure: No end point data for material.

Not expected to cause organ damage from a single exposure.

Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

OTHER INFORMATION

For the product itself:

Repeated and/or prolonged exposure may cause irritation to the skin, eyes, or respiratory tract. Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components or similar formulations.

Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC
2 = NTP SUS

3 = IARC 1
4 = IARC 2A

5 = IARC 2B
6 = OSHA CARC

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component -- Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be

completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: This material is not considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: AICS, DSL, ENCS, IECSC, KECI, PICCS, TSCA

EPCRA SECTION 302: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

- | | | | |
|---------------|------------------|-------------------|-------------|
| 1 = ACGIH ALL | 6 = TSCA 5a2 | 11 = CA P65 REPRO | 16 = MN RTK |
| 2 = ACGIH A1 | 7 = TSCA 5e | 12 = CA RTK | 17 = NJ RTK |
| 3 = ACGIH A2 | 8 = TSCA 6 | 13 = IL RTK | 18 = PA RTK |
| 4 = OSHA Z | 9 = TSCA 12b | 14 = LA RTK | 19 = RI RTK |
| 5 = TSCA 4 | 10 = CA P65 CARC | 15 = MI 293 | |

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

- H226: Flammable liquid and vapor; Flammable Liquid, Cat 3
- H227: Combustible liquid; Flammable Liquid, Cat 4
- H302: Harmful if swallowed; Acute Tox Oral, Cat 4
- H317: May cause allergic skin reaction; Skin Sensitization, Cat 1
- H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1
- H401: Toxic to aquatic life; Acute Env Tox, Cat 2
- H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2
- H413: May cause long lasting harmful effects to aquatic life; Chronic Env Tox, Cat 4

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Updates made in accordance with implementation of GHS requirements.

Disclaimer: This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

Internal Use Only

MHC: 0B, 0B, 0, 0, 0, 0

PPEC: A

DGN: 2026271XUS (1008755)

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NAPA® ANTIFREEZE COOLANT
NP001

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)

Product name	NAPA® ANTIFREEZE COOLANT
Product code	NP001
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, green

WARNING! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION.

Potential Health Effects

Exposure routes

Skin absorption, Skin contact, Eye Contact, Inhalation, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

May cause mild skin irritation. Symptoms may include redness and burning of skin. Although rare, skin contact with ethylene glycol may cause allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects). Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ingestion

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Swallowing this material may be harmful. Liver, kidney and brain damage in humans has resulted from swallowing lethal or near-lethal amounts of ethylene glycol. Ingestion of medications contaminated with diethylene glycol has caused kidney failure and death in humans. Products containing diethylene glycol should be considered toxic by ingestion.

Inhalation

Breathing of vapor or fume is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions), Liver, Kidney, Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Cough, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, involuntary eye movement, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), lung edema (fluid buildup in the lung tissue), acute kidney failure (sudden slowing or stopping of urine production), liver damage, Convulsions, coma

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: reproductive effects, kidney damage, liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: kidney damage, liver damage

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

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Reproductive hazard

Ethylene glycol has caused birth defects in animal studies at high oral doses. However, it did not cause harm to the pregnant animal or to the fetus when applied to the skin of the pregnant animal.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
ETHYLENE GLYCOL	107-21-1	>=90-<=100%
DIETHYLENE GLYCOL	111-46-6	>=1.5-<5%
INORGANIC SALT	NJTS# 254504001-5237	>=1.5-<5%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

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Hazards: Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnea, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post-exposure and is characterized by renal failure, ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery, to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis.

Treatment: This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, Dry chemical, Carbon dioxide (CO₂)

Hazardous combustion products

carbon dioxide and carbon monoxide, various hydrocarbons

Precautions for fire-fighting

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

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Flammability Class for Flammable Liquids
Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

ETHYLENE GLYCOL

107-21-1

ACGIH

Ceiling Limit Value:

100 mg/m³

Aerosol.

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General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves such as:

- Neoprene
- polyvinyl chloride
- Nitrile rubber

Respiratory protection

Respiratory protection is not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	No data
Colour	green
Odour	No data
Boiling point/boiling range	330.00 °F / 330 °F@ 760.00 mmHg
pH	(+/- 0.7) 10.7

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Flash point	250 °F / 121 °C
Evaporation rate	No data
Explosion limits	3.2 %(V) 15.3 %(V)
Vapour pressure	23.33 hPa @ 68 °F / 20 °C
Vapour density	No data
Density	(Average) 1.236 g/cm ³ @ 60.01 °F / 15.56 °C 9.41 lb/gal @ 60.1 °F / 15.6 °C
Solubility	soluble in water
Partition coefficient: n-octanol/water	No data
log Pow	no data available
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

None known.

Incompatible products

Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, various hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

ETHYLENE GLYCOL	LD 50 Rat: 6,140 mg/kg
DIETHYLENE GLYCOL	LD 50 Rat: 12,565 mg/kg
INORGANIC SALT	LD 50 Rat: > 500 mg/kg

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Acute inhalation toxicity

ETHYLENE GLYCOL	no data available
DIETHYLENE GLYCOL	LC Lo Mouse: 130 mg/m3 , 2 h
INORGANIC SALT	no data available

Acute dermal toxicity

ETHYLENE GLYCOL	LD 50 Rabbit: 9,530 mg/kg
DIETHYLENE GLYCOL	LD 50 Rabbit: 11,890 mg/kg
INORGANIC SALT	LD 50 Rabbit: > 300 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

No data

Environmental fate and pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Destroy by liquid incineration. Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

Proposition 65 warnings are not required for this product based on the results of a risk assessment.

SARA Hazard Classification Acute Health Hazard

SARA 313 Component(s)

ETHYLENE GLYCOL	107-21-1	95.01%
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New Jersey RTK Label Information

ETHYLENE GLYCOL	107-21-1
DIETHYLENE GLYCOL	111-46-6
WATER	7732-18-5
INORGANIC SALT	NJTS 254504001-5237

Pennsylvania RTK Label Information

ETHYLENE GLYCOL	107-21-1
DIETHYLENE GLYCOL	111-46-6

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	5262 lbs
--	----------

Reportable quantity - Components

ETHYLENE GLYCOL	107-21-1	5000 lbs
DIETHYLENE GLYCOL	111-46-6	none
INORGANIC SALT	NJTS# 254504001-5237	none

	Health	Flammability	Reactivity	Other
HMIS	2*	1	0	
NFPA	1	1	0	

16. OTHER INFORMATION

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The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).



SAFETY DATA SHEET

Revision Date 11-May-2020

Version 8

1. IDENTIFICATION

Product identifier

Product Name 133K ANTI-SEIZE LUBRICANT 8OZ

Other means of identification

Product Code 80078

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
6875 Parkland Blvd.
Solon, Ohio 44139 USA
Telephone: 1-87-Permatex
(866) 732-9502

May Also Be Distributed by:

ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

24-hour emergency phone number

Chem-Tel: 800-255-3924

International Emergency:

00+1+ 813-248-0585

Contract Number: MIS0003453

E-mail address: mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Carcinogenicity	Category 1B

Label elements

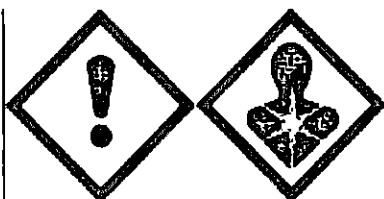
Emergency Overview

Signal word

Danger

Harmful if swallowed

May cause cancer



Appearance Silver

Physical state Paste Liquid

Odor Petroleum

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

May be harmful in contact with skin.

Unknown acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
CALCIUM OXIDE	1305-78-8	10 - 30
GRAPHITE	7782-42-5	10 - 30
ALUMINIUM POWDER	7429-90-5	5 - 10
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT	64742-71-8	3 - 7

4. FIRST AID MEASURES

Description of first aid measures

General advice

If symptoms persist, call a physician.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact

Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a

physician.

Inhalation	Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use, Use dry chemical, Carbon dioxide (CO₂), Water spray (fog), Alcohol resistant foam

Unsuitable extinguishing media

Water

Specific hazards arising from the chemical

Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes and skin. Wash thoroughly after handling. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges.

Environmental precautions

Environmental precautions See section 12 for additional ecological information. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.

Incompatible materials Strong oxidizing agents, Acids, Alkalis, Amines

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
CALCIUM OXIDE 1305-78-8	TWA: 2 mg/m ³	TWA: 5 mg/m ³ (vacated) TWA: 5 mg/m ³ not in effect as a result of reconsideration	IDLH: 25 mg/m ³ TWA: 2 mg/m ³
GRAPHITE 7782-42-5	TWA: 2 mg/m ³ respirable particulate matter all forms except graphite fibers	TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ respirable fraction synthetic (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ natural respirable dust
ALUMINIUM POWDER 7429-90-5	TWA: 1 mg/m ³ respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as

appropriate.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Paste Liquid
Appearance	Silver
Odor	Petroleum
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	> 95 °C / > 203 °F	Tag Closed Cup
Evaporation rate	< 1	Butyl acetate = 1
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<5 mm Hg	
Vapor density	>1	Air = 1
Relative density	1.17	
Water solubility	Negligible	
Solubility(ies)	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
 <u>Other Information</u>		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	0	
Density	No information available	
Bulk density	No information available	
SADT (self-accelerating decomposition temperature)	No information available	

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents, Acids, Alkalis, Amines

Hazardous Decomposition Products

Carbon oxides

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact	May cause skin irritation and/or dermatitis.
Ingestion	Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
CALCIUM OXIDE 1305-78-8	= 500 mg/kg (Rat)	-	-
GRAPHITE 7782-42-5	-	-	> 2000 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Serious eye damage/eye irritation Irritating to eyes.
Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT 64742-71-8	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Not classifiable as a human carcinogen

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Target Organ Effects Central Vascular System (CVS), Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	1624 mg/kg
ATEmix (dermal)	3946 mg/kg
ATEmix (inhalation-vapor)	32255 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

0.10105 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.
US EPA Waste Number	Not applicable

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
CALCIUM OXIDE 1305-78-8	Corrosive
ALUMINIUM POWDER 7429-90-5	Ignitable powder

14. TRANSPORT INFORMATION**DOT**

Proper shipping name: Not regulated

IATA

Proper shipping name: Not regulated

IMDG

Proper shipping name: Not regulated

15. REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
ALUMINIUM POWDER - 7429-90-5	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
CALCIUM OXIDE 1305-78-8	X	X	X
GRAPHITE 7782-42-5	X	X	X
ALUMINIUM POWDER 7429-90-5	X	X	X
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT 64742-71-8	-	X	-
COPPER 7440-50-8	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2A - Very toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	-
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
 HMIS (Hazardous Material Information System)

Revision Date 11-May-2020

Disclaimer

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End of Safety Data Sheet



Safety Data Sheet

The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810
Tel. 1-203-205-2900

1. Product And Company Identification

Product Name: ARMOR ALL® Original Protectant

Responsible Party: The Armor All/STP Products Company
44 Old Ridgebury Road
Suite 300
Danbury, CT 06810

Information Phone Number: +1 203-205-2900

Emergency Phone Number:

For Medical Emergencies, call 1-866-949-6465 / +1 303-389-1332 (Outside US and Canada)

For Transportation Emergencies, call 1-800-424-9300 (Chemtrec) +1-703-527-3887 for
Outside US and Canada (call collect)

SDS Date Of Preparation: 01/31/2015

Product Use and Uses Advised Against: Automotive maintenance product – For consumer and professional use

2. Hazards Identification

Note: This product is a consumer product and is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will differ from the OSHA information shown below.

GHS Classification:

Physical:	Health:
Not Hazardous	Not Hazardous

GHS Label Elements: None

Hazards not otherwise specified: None

Percentage of unknown toxicity: N/a

3. Composition/Information On Ingredients

Component	CAS No.	Amount
Non-Hazardous Ingredients	Mixture	95> - 100%
Mineral Oil	8042-47-5	< 5%

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Rinse skin with plenty of water. If skin irritation or redness develops, seek medical attention.

Eye Contact: Flush eyes with plenty of water. If irritation or other symptoms persist, seek medical attention.



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Ingestion: Do not induce vomiting unless directed to by doctor or physician. If the victim is fully conscious, have them drink a glass of water. Get medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

Most Important Symptoms: Direct eye contact may cause mild irritation.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention should not be required.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use dry chemical, carbon dioxide, foam, or water spray.

Specific Hazards Arising from the Chemical: Closed containers may rupture if exposed to extreme heat. Thermal decomposition will generate oxides of carbon and silicon and formaldehyde.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate protective equipment.

Environmental Precautions: Prevent entry in storm sewers and waterways. Report spill as required by local and national regulations.

Methods for Containment and Clean-Up: Absorb with an inert material. Collect into a suitable container for disposal. Rinse area with water.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin and clothing. Wash hands after use. Keep out of the reach of children.

Conditions for Safe Storage, Including any Incompatibilities: No special storage required.

8. Exposure Controls / Personal Protection

Exposure Guidelines:

CHEMICAL	EXPOSURE LIMIT
Non-Hazardous Ingredients	None Established
Mineral Oil	5.0 mg/m ³ inhalable TWA ACGIH TLV 5.0 mg/m ³ TWA OSHA PEL

Engineering Controls: General ventilation should be adequate for all normal use.

Personal Protective Equipment



Safety Data Sheet

The Armor All/STP Products Company

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Respiratory Protection: None required under normal use conditions.

Gloves: None required under normal use conditions.

Eye Protection: None required for normal use. Avoid eye contact.

Other Protective Equipment/Clothing: None required under normal use conditions.

9. Physical and Chemical Properties

Appearance and Odor: Opaque, white viscous liquid with a slight odor.

Physical State: Liquid	Odor Threshold: Not available
pH: 7.5 - 9.0	Specific Gravity: ~1
Initial Boiling Point/Range: Not determined	Vapor Pressure: Not determined
Melting/Freezing Point: Not determined	Vapor Density: Not determined
Solubility In Water: Easily soluble	Percent Volatile: >80%
Viscosity: ~ 3,000 cP	Evaporation Rate: Not determined
Coefficient Of Water/Oil Distribution: Not determined	VOC Content: Not determined
Flash Point: >212°F (>100°C)	Autoignition Temp: Not determined
Decomposition Temperature: Not determined	Flammability Limits: LEL: Not determined UEL: Not determined
Flammability (solid, gas): Not applicable	

10. Stability and Reactivity

Reactivity: Not normally reactive

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None known

Conditions To Avoid: None known

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Thermal decomposition will generate oxides of carbon, silicon dioxide, and formaldehyde.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:

Acute Hazards:

Inhalation: No adverse effects expected from the normal use of this product.

Skin Contact: No adverse effects expected from the normal use of this product.

Eye Contact: Direct contact may cause slight eye irritation.

Ingestion: Swallowing may cause gastrointestinal disturbances.



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Chronic Hazards: None currently known.

Carcinogenicity Listing: None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values:

No data available for product.

Mineral Oil: LD50 Rat oral > 5,000 mg/kg
LD50 Rabbit dermal > 2,000 mg/kg
LC50 Rat inhalation > 5,000 mg/L/4 hr.

12. Ecological Information

Ecotoxicity:

No ecotoxicity data is currently available for product.

Mineral Oil: NOEL Oncorhynchus mykiss \geq 100 mg/L/96 hr.
NOEL Daphnia magna \geq 100 mg/L/96 hr.

Persistence and Degradability: No data available

Bio accumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. Disposal Considerations

Dispose of in accordance with all local, state/provincial and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: Not Regulated

Canadian TDG Hazardous Materials Description: Not Regulated

IMDG Dangerous Goods Description: Not Regulated

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.



Safety Data Sheet

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CERCLA Section 103: This product has no RQ, however, oil spills must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not hazardous

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Canada:

Canadian WHMIS Classification: Not a controlled product.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian DSL.

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

16. Other Information

NFPA Rating (NFPA 704):	Health: 0	Fire: 0	Instability: 0
HMIS Rating:	Health: 0	Fire: 0	Physical Hazard: 0

REVISION SUMMARY: January 31, 2015 Update to GHS SDS format and name change: Changes to all sections.

DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH

SAFETY DATA SHEET

1. Identification

Product number 1000028751
Product identifier 13 OZ NAPA MAC'S BATTERY TERMINAL CLEANER 1072
Company Information NAPA Balkamp
2601 Stout Heritage Parkway
Plainfield, IN 46168 United States
Company phone General Assistance 1-317-754-3900
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 01
Recommended use CLEANER
Recommended restrictions None known.

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Health hazards Not classified.
OSHA defined hazards Not classified.

Label elements



Signal word Danger
Hazard statement Extremely flammable aerosol.
Precautionary statement
Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.
Response Wash hands after handling.
Storage Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	2.5 - 10
Isopropyl Alcohol		67-63-0	2.5 - 10
Propane		74-98-6	2.5 - 10
Sodium Carbonate Anhydrous		497-19-8	1 - 2.5
Other components below reportable levels			80 - 90

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation If symptoms develop move victim to fresh air. Get medical attention if symptoms persist.
Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Not available.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Level 1 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Isopropyl Alcohol (CAS 67-63-0)	PEL	980 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Propane (CAS 74-98-6)	PEL	400 ppm
		1800 mg/m ³
		1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m ³
		800 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	1225 mg/m ³
		500 ppm
		980 mg/m ³
Propane (CAS 74-98-6)	TWA	400 ppm
		1800 mg/m ³
		1000 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Isopropyl Alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear suitable protective clothing.

Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Gas.
Form	Aerosol.
Color	Not available.

Odor Not available.

Odor threshold Not available.

pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	212 °F (100 °C) estimated
Flash point	-156.0 °F (-104.4 °C) PROPELLANT estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	2.5 % estimated
Flammability limit - upper (%)	12 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	60 psig @70F estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0.95 @70F estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Nitrates. Isocyanates. Fluorine. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure	
Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.
Information on toxicological effects	
Acute toxicity	

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l
Isopropyl Alcohol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	16.4 ml/kg, 24 Hours
Inhalation		
LC50	Rat	> 10000 ppm, 6 Hours
Oral		
LD50	Rat	5.84 g/kg
Propane (CAS 74-98-6)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l 658 mg/l/4h
Sodium Carbonate Anhydrous (CAS 497-19-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Guinea pig	800 mg/m3, 2 Hours
<i>Aerosol</i>		
LC50	Mouse	1200 mg/m3, 2 Hours
	Rat	2300 mg/m3, 2 Hours
LC50	Rat	2.3 mg/l, 2 hours supplier
Oral		
LD50	Rat	2800 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not likely, due to the form of the product.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Isopropyl Alcohol (CAS 67-63-0)			
Aquatic			
Algae	IC50	Algae	1000.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia	13299 mg/L, 48 Hours
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours
Sodium Carbonate Anhydrous (CAS 497-19-8)			
Aquatic			
Crustacea	EC50	Daphnia	265 mg/L, 48 Hours
		Water flea (Ceriodaphnia dubia)	156.6 - 298.9 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	300 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Butane	2.89
Isopropyl Alcohol	0.05
Propane	2.36

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

DOT

UN number UN1950

UN proper shipping name Aerosols, flammable, (each not exceeding 1 L capacity)

Transport hazard class(es)

Class 2.1

Subsidiary risk -

Label(s) 2.1

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions N82

Packaging exceptions 306
Packaging non bulk None
Packaging bulk None

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not applicable.
Environmental hazards No.
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.
Packaging Exceptions LTD QTY

IMDG

UN number UN1950
UN proper shipping name AEROSOLS
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) None
Packing group Not applicable.
Environmental hazards
Marine pollutant No.
EmS F-D, S-U
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions LTD QTY
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Butane (CAS 106-97-8)

Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

US. Massachusetts RTK - Substance List

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

Propane (CAS 74-98-6)

US. New Jersey Worker and Community Right-to-Know Act

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

Propane (CAS 74-98-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

Propane (CAS 74-98-6)

US. Rhode Island RTK

Butane (CAS 106-97-8)

Isopropyl Alcohol (CAS 67-63-0)

Propane (CAS 74-98-6)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0)

Listed: January 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 06-27-2016**Version #** 01

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information Product and Company Identification: Product and Company Identification

SAFETY DATA SHEET

1. Identification

Product identifier: NAPA Mac's 1397 Belt Dressing

Other means of identification

SDS number: RE1000036034

Recommended restrictions

Product use: Lubricant

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: NAPA BALKAMP
Address: 1601 Whitaker Rd
INDIANAPOLIS, IN 46168
Telephone: 317-837-2800
Fax:

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol Category 1

Health Hazards

Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Skin sensitizer Category 1
Specific Target Organ Toxicity -
Single Exposure Category 3¹
Aspiration Hazard Category 1

Target Organs

1. Narcotic effect.

Environmental Hazards

Acute hazards to the aquatic
environment Category 2
Chronic hazards to the aquatic
environment Category 3

Label Elements

Hazard Symbol:



Hazard Statement: Extremely flammable aerosol.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Wash contaminated clothing before reuse.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
2-Propanone	67-64-1	20 - <50%
Propane	74-98-6	10 - <20%
Butane	106-97-8	10 - <20%
Solvent naphtha (petroleum), light aliph.	64742-89-8	10 - <20%
Heptane	142-82-5	5 - <10%
Heptane, branched, cyclic and linear	426260-76-6	5 - <10%
Naphtha (petroleum), hydrotreated light	64742-49-0	5 - <10%
Naphtha (petroleum), heavy alkylate	64741-65-7	5 - <10%
Maleic Anhydride Modified Liquid Polyisoprene	841251-34-1	1 - <5%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Call a physician or poison control center immediately. Rinse mouth. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Inhalation: Move to fresh air.

Skin Contact: Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General Fire Hazards: Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Vapors may travel considerable distance to a source of ignition and flash back.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Notification Procedures: Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities: Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 3

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
2-Propanone	STEL	1,000 ppm 2,400 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	1,000 ppm 2,400 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	250 ppm	US. ACGIH Threshold Limit Values (03 2015)
	TWA	750 ppm 1,800 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Propane	STEL	500 ppm	US. ACGIH Threshold Limit Values (03 2015)
	REL	250 ppm 590 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	1,000 ppm 1,800 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm 1,800 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Butane	TWA	1,000 ppm 1,800 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	800 ppm 1,900 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (03 2018)
Solvent naphtha (petroleum), light aliph.	TWA	800 ppm 1,900 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm 400 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	100 ppm 400 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Naphtha (petroleum), hydrotreated light	PEL	100 ppm 400 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	REL	100 ppm 400 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	100 ppm 400 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	400 ppm 1,600 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Heptane	REL	85 ppm 350 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	500 ppm 2,000 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	500 ppm 2,000 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	400 ppm	US. ACGIH Threshold Limit Values (02 2012)
	STEL	500 ppm	US. ACGIH Threshold Limit Values (02 2012)
	Ceil. Time	440 ppm 1,800 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Naphtha (petroleum), heavy alkylate	PEL	100 ppm 400 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	100 ppm 400 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm 400 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Distillates (petroleum), hydrotreated heavy naphthenic	TWA	400 ppm 1,600 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	500 ppm 2,000 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Distillates (petroleum), hydrotreated heavy naphthenic - Mist.	REL	5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	10 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

hydrotreated heavy naphthenic				
Distillates (petroleum), hydrotreated heavy naphthenic - Inhalable fraction.	TWA		5 mg/m ³	US. ACGIH Threshold Limit Values (03 2014)
Distillates (petroleum), hydrotreated heavy naphthenic	REL		350 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Benzene, methyl-	STEL	150 ppm	560 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm	375 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	375 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
Benzene	STEL	150 ppm	560 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	0.1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	1 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	25 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	0.5 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	2.5 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	OSHA_ACT	0.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	TWA	10 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	50 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
Benzene, (1-methylethyl)-	STEL	5 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	STEL	1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	50 ppm	245 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm		US. ACGIH Threshold Limit Values (2008)
	PEL	50 ppm	245 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 ppm	245 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Benzene, ethyl-	TWA	1 ppm		US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values (03 2018)
	STEL	125 ppm	545 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	100 ppm	435 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	100 ppm	435 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	125 ppm	545 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm	435 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (12 2010)
Hexane	TWA	50 ppm	180 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	500 ppm	1,800 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	REL	50 ppm	180 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
Cyclohexane	TWA	300 ppm	1,050 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	300 ppm	1,050 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	300 ppm	1,050 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
2-Propanone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEL (03 2015)
Benzene, methyl- (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL (03 2013)
Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL (03 2013)
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEL (02 2014)
Hexane (2,5-Hexanedione, without hydrolysis: Sampling	0.5 mg/l (Urine)	ACGIH BEL (03 2018)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: No data available.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Avoid contact with eyes. When using do not smoke. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: Spray Aerosol
Color: No data available.
Odor: No data available.
Odor threshold: No data available.
pH: No data available.
Melting point/freezing point: No data available.
Initial boiling point and boiling range: No data available.
Flash Point: Estimated -104.44 °C
Evaporation rate: No data available.
Flammability (solid, gas): No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): Estimated 9.5 %(V)
Flammability limit - lower (%): Estimated 1.9 %(V)
Explosive limit - upper (%): No data available.
Explosive limit - lower (%): No data available.

Vapor pressure: Estimated 2,068 - 3,447 hPa (20 °C)
Vapor density: No data available.
Density: No data available.
Relative density: No data available.
Solubility(ies)

Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	No data available.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

2-Propanone	LD 50 (Rat): 5,800 mg/kg
Solvent naphtha (petroleum), light aliph.	LD 50 (Rat): > 5,000 mg/kg
Heptane	LD 50 (Rat): > 5,000 mg/kg
Heptane, branched, cyclic and linear	LD 50: > 2,000 mg/kg
Naphtha (petroleum), hydrotreated light	LD 50 (Rat): > 5,000 mg/kg

Naphtha (petroleum),
heavy alkylate LD 50: > 2,000 mg/kg

Maleic Anhydride
Modified Liquid
Polyisoprene LD 50: > 2,000 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

2-Propanone LD 50 (Rabbit): > 7,426 mg/kg

Solvent naphtha
(petroleum), light aliph. LD 50 (Rabbit): > 2,000 mg/kg

Heptane LD 50 (Rabbit): > 2,000 mg/kg

Heptane, branched,
cyclic and linear LD 50: > 2,000 mg/kg

Naphtha (petroleum),
hydrotreated light LD 50 (Rabbit): > 3,750 mg/kg

Naphtha (petroleum),
heavy alkylate LD 50: > 2,000 mg/kg

Maleic Anhydride
Modified Liquid
Polyisoprene LD 50: > 2,000 mg/kg

Inhalation

Product: ATEmix: 65.21 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

2-Propanone NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral Experimental result, Key study

Propane NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study

LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study

Butane LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study

NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study

Solvent naphtha
(petroleum), light aliph. NOAEL (Mouse, Rat(Female, Male), Inhalation, 107 - 113 Weeks): 1,402 mg/m3 Inhalation Experimental result, Key study

NOAEL (Rat(Female, Male), Dermal, 5 - 28 d): 3,750 mg/kg Dermal Experimental result, Key study

NOAEL (Rat(Female, Male), Dermal, 28 d): > 375 mg/kg Dermal Experimental result, Supporting study

Heptane NOAEL (Rat(Male), Inhalation): 12,470 mg/m3 Inhalation Experimental result, Key study

Naphtha (petroleum),
hydrotreated light LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg Oral Read-across based on grouping of substances (category approach), Key study

NOAEL (Rat(Female, Male), Dermal, 28 d): > 375 mg/kg Dermal Experimental result, Supporting study

NOAEL (Rat(Female, Male), Inhalation): 10,000 mg/m3 Inhalation Experimental result, Key study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

2-Propanone in vivo (Rabbit): Not irritant Experimental result, Supporting study

Solvent naphtha Assessment Non-Irritating
(petroleum), light aliph. in vivo (Rabbit): Irritating Experimental result, Key study

Heptane in vivo (Rabbit): Irritating Read-across based on grouping of substances
(category approach), Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

2-Propanone Irritating.
Rabbit, 24 hrs: Minimum grade of severe eye irritant

Solvent naphtha Rabbit: Not irritating
(petroleum), light aliph.

Heptane Rabbit, 24 - 72 hrs: Not irritating

Naphtha (petroleum), Rabbit, 24 - 72 hrs: Not irritating
hydrotreated light

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

2-Propanone Skin sensitization:, in vivo (Guinea pig): Non sensitising

Solvent naphtha Skin sensitization:, in vivo (Guinea pig): Non sensitising
(petroleum), light aliph.

Heptane Skin sensitization:, in vivo (Guinea pig): Non sensitising

Naphtha (petroleum), Skin sensitization:, in vivo (Guinea pig): Non sensitising
hydrotreated light

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Specified substance(s):

2-Propanone Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.
Heptane Narcotic effect. - Category 3 with narcotic effects.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Target Organs

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

Aspiration Hazard

Product: No data available.

Specified substance(s):

Solvent naphtha (petroleum), light aliph. May be fatal if swallowed and enters airways.
Heptane May be fatal if swallowed and enters airways.
Heptane, branched, cyclic and linear May be fatal if swallowed and enters airways.
Naphtha (petroleum), hydrotreated light May be fatal if swallowed and enters airways.
Naphtha (petroleum), heavy alkylate May be fatal if swallowed and enters airways.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

2-Propanone LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study
Propane LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Butane LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Solvent naphtha (petroleum), light aliph. LL 50 (Pimephales promelas, 96 h): 8.2 mg/l Experimental result, Key study
Heptane LC 50 (Mozambique tilapia (Tilapia mossambica), 96 h): 375 mg/l Mortality
Naphtha (petroleum), hydrotreated light LC 50 (96 h): 8.41 mg/l Experimental result, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

2-Propanone LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study
Butane LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Solvent naphtha (petroleum), light aliph. EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study
NOAEL (Daphnia magna, 48 h): 0.5 mg/l Experimental result, Key study

Naphtha (petroleum), hydrotreated light EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Solvent naphtha (petroleum), light aliph. NOAEL (Daphnia magna): 2.6 mg/l Other, Key study

Heptane NOAEL (Oncorhynchus mykiss): 1.284 mg/l QSAR QSAR, Key study

Naphtha (petroleum), hydrotreated light EC 50 (Daphnia magna): 10 mg/l Other, Key study
NOAEL (Daphnia magna): 2.6 mg/l Other, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

2-Propanone LOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study
NOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study

Solvent naphtha (petroleum), light aliph. EC 50 (Daphnia magna): > 40 mg/l Experimental result, Key study

Heptane NOAEL (Daphnia magna): 0.17 mg/l Read-across based on grouping of substances (category approach), Key study
EC 50 (Daphnia magna): 0.23 mg/l Read-across based on grouping of substances (category approach), Key study

Heptane, branched, cyclic and linear NOEC : < 1 mg/l estimation

Naphtha (petroleum), hydrotreated light EC 50 (Daphnia magna): 10 mg/l Experimental result, Key study
NOAEL (Daphnia magna): 2.6 mg/l Experimental result, Key study

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

2-Propanone 90.9 % (28 d) Detected in water. Experimental result, Key study

Propane 100 % (385.5 h) Detected in water. Experimental result, Key study
50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study

Butane 100 % (385.5 h) Detected in water. Experimental result, Key study

Solvent naphtha (petroleum), light aliph. 90.35 % (28 d) Detected in water. Experimental result, Supporting study
77.05 % Detected in water. Experimental result, Supporting study

Heptane 70 % Detected in water. Experimental result, Key study

Naphtha (petroleum), hydrotreated light 90.35 % (28 d) Detected in water. Experimental result, Supporting study

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Specified substance(s):
2-Propanone Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment
Experimental result, Not specified

Solvent naphtha Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by
(petroleum), light aliph. calculation, Key study

Heptane Bioconcentration Factor (BCF): 552 Aquatic sediment Estimated by
calculation, Key study

Naphtha (petroleum), Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by
hydrotreated light calculation, Key study

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s):
Naphtha (petroleum), Log Kow: > 2.4 - < 5.7 23 °C Yes Experimental result, Key study
hydrotreated light Log Kow: 2.2 - 5.2 23 °C Yes Experimental result, Key study
Log Kow: 2.2 - 6.1 23 °C Yes Experimental result, Key study

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments
2-Propanone No data available.
Propane No data available.
Butane No data available.
Solvent naphtha (petroleum), light aliph. No data available.
Heptane No data available.
Heptane, branched, cyclic and linear No data available.
Naphtha (petroleum), hydrotreated light No data available.
Naphtha (petroleum), heavy alkylate No data available.
Maleic Anhydride Modified Liquid Polyisoprene No data available.

Other adverse effects: Toxic to aquatic organisms. Harmful to aquatic life with long lasting effects.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging: No data available.

14. Transport information

DOT
UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es)
Class: 2.1
Label(s): -
Packing Group: II
Marine Pollutant: No

Environmental Hazards: No
Marine Pollutant: No

IMDG

UN Number: UN 1950
UN Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es)
Class: 2
Label(s): -
EmS No.:
Packing Group: -

Environmental Hazards: No
Marine Pollutant: No

Special precautions for user: Not regulated.

IATA

UN Number: UN 1950
Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es):
Class: 2.1
Label(s): -
Packing Group: -

Environmental Hazards: No
Marine Pollutant: No

Special precautions for user: Not regulated.

15. Regulatory information

US Federal Regulations

Restrictions on use: Not known.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Benzene	Flammability Cancer Aspiration Eye Blood Skin respiratory tract irritation Central nervous system

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
2-Propanone	lbs. 5000
Propane	lbs. 100
Butane	lbs. 100
Heptane	lbs. 100
Benzene, methyl-	lbs. 1000
Benzene	lbs. 10
Benzene, (1-methylethyl)-	lbs. 5000
Benzene, ethyl-	lbs. 1000
Hexane	lbs. 5000
Cyclohexane	lbs. 1000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Fire Hazard
- Immediate (Acute) Health Hazards
- Flammable aerosol
- Skin Corrosion/Irritation
- Serious Eye Damage/Eye Irritation
- Skin sensitizer
- Specific Target Organ Toxicity - Single Exposure
- Aspiration Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
2-Propanone		
Hexane		

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
2-Propanone	lbs. 5000
Propane	lbs. 100
Butane	lbs. 100
Heptane	lbs. 100
Benzene, methyl-	lbs. 1000
Benzene	lbs. 10
Benzene, (1-methylethyl)-	lbs. 5000
Benzene, ethyl-	lbs. 1000
Hexane	lbs. 5000
Cyclohexane	lbs. 1000

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
2-Propanone	10000 lbs
Propane	10000 lbs
Butane	10000 lbs
Solvent naphtha (petroleum), light aliph.	10000 lbs
Heptane	10000 lbs
Heptane, branched, cyclic and linear	10000 lbs
Naphtha (petroleum), hydrotreated light	10000 lbs
Naphtha (petroleum), heavy alkylate	10000 lbs
Maleic Anhydride Modified Liquid Polyisoprene	10000 lbs
Distillates (petroleum), hydrotreated heavy naphthenic	10000 lbs
Benzene, methyl-	10000 lbs
Benzene	10000 lbs
Benzene, (1-methylethyl)-	10000 lbs
Benzene, ethyl-	10000 lbs
Hexane	10000 lbs
Cyclohexane	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
US State Regulations**

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Benzene, methyl-	Developmental toxin. 03 2008
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008
Benzene, (1-methylethyl)-	Carcinogenic. 05 2011
Benzene, ethyl-	Carcinogenic. 05 2011
Hexane	Male reproductive toxin. 12 2017

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

2-Propanone
Propane
Butane
Solvent naphtha (petroleum), light aliph.
Naphtha (petroleum), hydrotreated light
Heptane
Naphtha (petroleum), heavy alkylate
Distillates (petroleum), hydrotreated heavy naphthenic

US. Massachusetts RTK - Substance List

Chemical Identity

Benzene

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

2-Propanone
Propane
Butane
Solvent naphtha (petroleum), light aliph.
Naphtha (petroleum), hydrotreated light
Heptane
Naphtha (petroleum), heavy alkylate

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

2-Propanone

Stockholm convention

2-Propanone

Rotterdam convention

2-Propanone

Kyoto protocol

Inventory Status:

Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Ontario Inventory:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Japan (ENCS) List:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

Issue Date: 02/24/2020

Revision Information: No data available.

Version #: 1.0

Further Information: No data available.

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

POWER SERVICE PRODUCTS, INC.
SAFETY DATA SHEET



SECTION 1 - IDENTIFICATION

PRODUCT NAME: BIO KLEEN DIESEL FUEL BIOCID

Unless otherwise noted, all sections of this SDS apply to each of the following part numbers.

PART NUMBERS:

9016-09, 9128-04, 9055-01, 9060-01

EPA ESTABLISHMENT NUMBER: 69633-TX-001

EPA REGISTERED PESTICIDE NUMBER: 464-659-69633

COMPANY IDENTIFICATION:

Power Service Products, Inc.
P.O. Box 1089
Weatherford, TX 76086
Email: psp@powerservice.com
Phone: 800/643-9089 or 817-599-9486
Fax: 817-599-4893

Emergency Phone Number: Within USA 1-800-424-9300. Outside USA 001-703-527-3887
(Call Collect).

RECOMMENDED USES: Diesel fuel additive

SECTION 2 - HAZARD(S) IDENTIFICATION

CLASSIFICATION UNDER 29 CFR 1910.1200(d)

(NC=product does not meet classification criteria)

Health Hazard Criteria	Category
Acute Toxicity, Oral:	4
Acute Toxicity, Dermal:	3
Acute Toxicity, Inhalation, Vapors:	4
Skin Corrosion/Irritation:	2
Serious Eye Damage/Eye Irritation:	1
Respiratory Sensitization:	NC
Skin Sensitization:	1
Germ Cell Mutagenicity:	NC

Health Hazard Criteria	Category
Carcinogenicity:	NC
Reproductive Toxicity:	NC
Specific Target Organ Toxicity, Single Exposure:	NC
Specific Target Organ Toxicity, Repeated or Prolonged Exposure:	NC
Aspiration Hazard:	NC

Physical Properties Criteria	Category
Explosives:	NC
Flammable Gases:	NC
Flammable Aerosols:	NC
Oxidizing Gases:	NC
Gases Under Pressure:	NC
Flammable Liquids:	NC
Flammable Solids:	NC
Self-Reactive Chemicals:	NC
Pyrophoric Liquids:	NC
Pyrophoric Solids:	NC
Self-Heating Chemicals:	NC
Chemicals Which, in Contact with Water, Emit Flammable Gases:	NC
Oxidizing Liquids:	NC
Oxidizing Solids:	NC
Organic Peroxides:	NC
Corrosive to Metals:	NC

LABEL SIGNAL WORD, HAZARD STATEMENTS, SYMBOLS AND PRECAUTIONARY STATEMENTS UNDER 29 CFR 1910.1200(f):

Please see the Note regarding product labeling in Section 16.

SIGNAL WORD: DANGER

Hazard Statement(s): Combustible liquid. Harmful if swallowed or if inhaled. Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage.

Symbols: The following symbols are for all treatment ratios.



Precautionary Statement(s):

PREVENTION: keep away from heat, sparks, open flames and hot surfaces. No smoking. Avoid breathing dust, fume, gas, mist, vapors, and spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye and face protection.

RESPONSE: If SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. Remove/Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

STORAGE: Store in a well-ventilated place. Keep cool. Store locked up.

DISPOSAL: Dispose of contents/container to an approved waste disposal plant.

Hazards Not Otherwise Classified: None

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms: 4-(2-nitrobutyl) morpholine.

Chemical Name	CAS Number	Concentration (%)
4-(2-nitrobutyl) morpholine	2224-44-4	81.0
Methylene Dimorpholine	5625-90-1	5.7
4,4'-(2-Ethyl-2-nitropropane-1,3-diyl)bismorpholine	1854-23-5	5.0
Morpholine	110-91-8	5.0
1-Nitropropane	108-03-2	3.3

SECTION 4 - FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

EMERGENCY PERSONNEL PROTECTION: First aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

EYE CONTACT: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after first 5 minutes and continue washing. Obtain prompt

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medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

SKIN CONTACT: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly. Suitable emergency safety shower facility should be immediately available.

INHALATION: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc.). Call a poison control center or doctor for treatment advice.

INGESTION: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:
Notes to physician: Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. Probable mucosal damage may contraindicate the use of gastric lavage. If burn is present, treat as any thermal burn, after decontamination. Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 – FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

UNSUITABLE EXTINGUISHING MEDIA: No data available.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

HAZARDOUS COMBUSTION PRODUCTS: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Carbon monoxide. Carbon dioxide.

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UNUSUAL FIRE AND EXPLOSION HAZARDS: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

ADVICE FOR FIREFIGHTERS:

FIRE FIGHTING PROCEDURES: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Evacuate area. Refer to Section 7, Handling and Storage, for additional precautionary measures. Only trained and properly protected personnel must be involved in clean-up operations. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls / Personal Protection.

ENVIRONMENTAL PRECAUTIONS: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: KEEP OUT OF REACH OF CHILDREN. Keep away from heat, sparks and flame. Do not get in eyes. Avoid breathing vapor. Avoid contact with skin and clothing. Avoid prolonged or repeated contact with skin. Do not swallow. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. See Section 8, EXPOSURE CONTROLS / PERSONAL PROTECTION.

Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

CONDITIONS FOR SAFE STORAGE: Avoid temperatures above 100°C (212°F). Store away from incompatible materials. See STABILITY AND REACTIVITY section.

STORAGE STABILITY:

SHELF LIFE: Use within 12 months.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS:

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Morpholine	ACGIH	TWA	20 ppm (absorbed via SKIN)
	OSHA Table Z-1	TWA	70 mg/m ³ 20 ppm (absorbed via SKIN)
1- Nitropropane	ACGIH	TWA	25 ppm
	OSHA Table Z-1	TWA	90 mg/m ³ 25 ppm

EXPOSURE CONTROLS:

ENGINEERING CONTROLS: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

INDIVIDUAL PROTECTION MEASURES:

Eyes / Face Protection: Use chemical goggles.

Skin Protection:

Hand Protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. NOTICE: The selection of a

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specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

OTHER Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid, yellow to brown color
Odor	Amine
Odor Threshold	Not available
pH	9.5 – 10.0 (ASTEM E70)
Melting point	Not available
Freezing point	50.9°F (10.5°C) Literature
Boiling Point (760 mmHg)	346.8°F (174.9°C) ASTM D1120
Flash Point	160°F (≥71°C) Pensky-Martens Closed Cup ASTM D93
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Upper. lower Flammability or Explosive Limits	Not available
Vapor Pressure	1.04 hPa at 77°F (25°C) EC Method A4
Vapor Density (air =1)	Not available
Relative Density (water =1)	1.1 at 77°F (25°C) ASTM D891
Water Solubility	3.1% at 77°F (25°C) EC Method A6
Partition Coefficient; n-octanol / water	Not available
Auto-ignition Temperature	500°F (260°C) EC Method A15
Decomposition temperature	Not available
Dynamic Viscosity	18.2 mPa.s at 68°F (20°C) OECD 114 (Brookfield Viscosity- @100 rpm, #0 spindle) 7.7 mPa.s at 104°F (40°C) OECD 114 (Brookfield Viscosity - @ 100 rpm, #0 spindle)
Kinematic Viscosity	16.55 cSt at 68°F (20°C) Calculated. 7.0 cSt at 104°F (40°C) Calculated
Explosive Properties	Not explosive

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Oxidizing Properties	NO
Molecular Weight	188.2 g/mol <i>Calculated</i>

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: No dangerous reaction known under conditions of normal use.

CHEMICAL STABILITY: Stable under recommended storage conditions. See Storage, Section 7. Unstable at elevated temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Polymerization will not occur.

CONDITIONS TO AVOID: Can crystallize. Dissolve crystals before use by warming and mixing. Avoid temperatures above 95°F (35°C.) and below 50°F (10°C.). Potentially violent decomposition can occur above 212°F. (100°C.). Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

INCOMPATIBLE MATERIALS: Avoid contact with oxidizing materials. Avoid contact with: Acidic pH. Acids. Reaction with acid can generate flammable formaldehyde gas.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic flammable gases can be released during decomposition.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

ACUTE TOXICITY:

ACUTE ORAL TOXICITY: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50, Rat, 620 mg/kg

ACUTE DERMAL TOXICITY: Prolonged or widespread skin contact may result in absorption of harmful amounts.

LD50, Rabbit, 420 mg/kg

ACUTE INHALATION TOXICITY: Vapor from heated material or mist may cause respiratory irritation. For narcotic effects: No specific, relevant data available for assessment.

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Maximum achievable concentration. LC50, Rat, 4 Hour, dust/mist, > 2.33 mg/l

SKIN CORROSION/IRRITATION: Brief contact may cause severe skin irritation with pain and local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.

SERIOUS EYE DAMAGE/EYE IRRITATION: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Mist may cause severe eye irritation and corneal injury.

SENSITIZATION:

SKIN: Skin contact may cause an allergic skin reaction.

RESPIRATORY: No relevant data found.

SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE): Evaluation of available data suggests that this material is not an STOT-SE toxicant.

SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE): Repeated exposure did not produce systemic toxicity when applied to the skin of rabbits. Repeated exposure did not produce systemic toxicity when applied to the skin of rats. Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

CARCINOGENICITY: Has caused cancer in laboratory animals. However, the effects are species specific and are not relevant to humans.

TERATOGENICITY: Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

REPRODUCTIVE TOXICITY: In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

MUTAGENICITY: In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

ASPIRATION HAZARD: May be harmful if swallowed and enters airways.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data are available.

TOXICITY:

Acute toxicity to fish: Material is highly toxic to aquatic organisms on an acute basis (LC50 / EC50 between 0.1 and 1 mg/L in most sensitive species tested).

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LC50, *Oncorhynchus mykiss* (rainbow trout), flow-through, 96 h: 2.3 mg/l, OECD Test Guideline 203 or Equivalent

LC50, *Lepomis macrochirus* (bluegill sunfish), semi-static test, 96 h: 1.3 mg/l, OECD Test Guideline 203 or Equivalent

LC50, *Oncorhynchus mykiss* (rainbow trout), semi-static test, 96 h: 1.1 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates:

EC50, *Daphnia magna* (water flea), flow-through test, 48 h, 3.23 mg/l, OECD Test Guideline 202 or Equivalent

NOEC, *Daphnia magna* (water flea), flow-through test, 48 h, 1.77 mg/l, OECD Test Guideline 202 or Equivalent

EC50, *Daphnia magna* (water flea), static test, 48 h, 1.9 mg/l, OECD Test Guideline 202 or Equivalent

LC50, pink shrimp (*Penaeus duorarum*), semi-static test, 96 h: 2.2 mg/l

Acute toxicity to algae/aquatic plants:

EC50, *Pseudokirchneriella subcapitata* (green alga), biomass growth inhibition, 96 h: 0.844 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to Above Ground Organisms:

Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

Oral LD50, *Anas platyrhynchos* (mallard duck): 2,695 mg/kg

Dietary LC50, *Colinus virginianus* (bobwhite quail): > 5,620 ppm

Dietary LC50, *Anas platyrhynchos* (mallard duck): >5,620 ppm

PERSISTENCE AND DEGRADABILITY:

Abiotic degradation: The material is rapidly degradable by abiotic means.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
11.9-27.2 %	28 d	OCED 301B Test or Equivalent	Fail

BIOACCUMULATIVE POTENTIAL: No data available for this product. Based on information for component(s): Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

MOBILITY IN SOIL: Based on information for component(s): Potential for mobility in soil is high (Koc between 50 and 150).

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Supersedes: August 28, 2019

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Partition coefficient, soil organic carbon/water (Koc): 50 Estimated.

SECTION 13 - DISPOSAL CONSIDERATIONS

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. POWER SERVICE PRODUCTS HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OF THE PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS SECTION COMPOSITION INFORMATION. FOR UNUSED & UNCONTAMINATED PRODUCTS, the preferred option is to contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. The preferred option in other jurisdictions is to contact the regulatory authority for this product for guidance. Incinerator or other thermal destruction device.

State or local laws may impose additional regulatory requirements regarding disposal.

EMPTY CONTAINER WARNING: Empty containers may contain residue and can be dangerous. See Section 5 for FIRE FIGHTING MEASURES.

SECTION 14 - TRANSPORTATION INFORMATION

The following part numbers are Consumer Commodities and are not regulated by DOT:

9016-09, 9128-04

The following part numbers are regulated by DOT:

9055-01, 9060-01

PROPER SHIPPING NAME: Disinfectants, liquid, toxic, n.o.s., (4-(2-nitrobutyl)morpholine), 6.1, UN 3142, III

HAZARD CLASS: 6.1

I.D. NUMBER: UN 3142

PACKING GROUP: III

PLACARDING: Toxic

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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SECTION 15 - REGULATORY INFORMATION

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA STATUS:

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

EPA SARA TITLE III CHEMICAL LISTINGS:

Section 302 Extremely Hazardous Substances: To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Sections 311/ 312 Hazard Class:

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	No
Fire Hazard	Yes
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Section 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

EPA CERCLA:

Section 103: To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): The following chemical are listed because of the additional requirements of Pennsylvania law

Component	CAS#
1-Nitropropane	108-03-2
Morpholine	110-91-8

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA):

EPA Registration Number: 464-659-69633

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

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Corrosive
Causes irreversible eye damage
Harmful if swallowed
Harmful if absorbed through skin
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
This pesticide is toxic to fish and aquatic organisms.

SECTION 16 – OTHER INFORMATION

DATE OF PREPARATION / REVISION: March 23, 2020.

NOTE regarding product labeling: The OSHA Hazard Communication Standard applies to hazardous chemicals known to be present in the workplace. However, the labeling requirements do not apply to product regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), such as BioKleen produced by Power Service Products. The label for the BioKleen products required under federal pesticide law differs from the classification criteria and hazard information required by OSHA. Please see Section 15.

The information contained herein is offered in good faith and is believed to be accurate based on the data available to us as of the date of SDS preparation. The information in this document applies to this specific product as supplied. It may not be appropriate for this product if the product is used in combination with other materials. The information in this document is not intended to constitute product performance information. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product. No statement shall be construed as an endorsement of any product or process. The recommended industrial hygiene and safe handling procedures are believed to be valid in the context of the intended use as described in product labeling. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. You are urged to obtain material safety data sheets for all products you buy, process, use or distribute, and are encouraged to advise those who may come in contact with such products of the information contained therein. Regulatory requirements are subject to change and may differ between locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. No warranty or guarantee is expressed or implied with respect to this product, the accuracy and sufficiency of the data or recommendations herein, or the results to be obtained from the use of this product. IN NO EVENT SHALL POWER SERVICE PRODUCTS, INC. BE LIABLE FOR ANY LOSS, CLAIM, DAMAGE OR LIABILITY OF ANY KIND, WHICH MAY ARISE FROM OR IN CONNECTION WITH THE INFORMATION CONTAINED IN THIS DOCUMENT OR FROM THE USE, HANDLING OR STORAGE OF THE PRODUCT BY THE BUYER/USER, WHETHER DIRECT, INDIRECT, OR CONSEQUENTIAL, OR FOR ANY CLAIM BY ANY THIRD PARTY, BEYOND THE PURCHASE PRICE OR REPLACEMENT OF THE PRODUCT IN CONNECTION WITH WHICH SUCH LOSS, CLAIM, DAMAGE OR LIABILITY AROSE.

THE FOREGOING LIMITATIONS APPLY REGARDLESS OF THE CAUSES OR CIRCUMSTANCES GIVING RISE TO SUCH LOSS, CLAIM, DAMAGE OR LIABILITY, EVEN IF

SUCH LOSS, CLAIM, DAMAGE, OR LIABILITY IS BASED ON NEGLIGENCE OR OTHER TORTS OR BREACH OF CONTRACT.



SAFETY DATA SHEET

1. Identification

Product identifier NAPA XL Bodyfiller

Other means of identification

Product Code 765-1663

Recommended use Automotive Refinish Body Filler/Putty

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Balkamp, Inc.

Address 2601 South Holt Road
Indianapolis, Indiana 46241
United States

Telephone Information 1-800-468-6832

E-mail msds@balkamp.com

Contact person Stephanie Pruitt

Emergency phone number Emergency 1-317-244-7241

2. Hazard(s) identification

Physical hazards Flammable liquids Category 3

Health hazards Acute toxicity, oral Category 3
Acute toxicity, inhalation Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Germ cell mutagenicity Category 2
Carcinogenicity Category 2
Reproductive toxicity Category 1
Specific target organ toxicity, repeated exposure Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 2

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapor. Toxic if swallowed. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. Suspected of causing genetic defects. Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	71.35% of the mixture consists of component(s) of unknown acute oral toxicity. 73.08% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 73.08% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Talc		14807-96-6	20 to <30
Magnesium carbonate		546-93-0	10 to <20
Styrene, monomer		100-42-5	10 to <20
Calcium carbonate		1317-65-3	5 to <10
Silicon dioxide		7631-86-9	1 to <5
Sodium silicate		1344-09-8	1 to <5
1,2,3-propanetriol		56-81-5	0.1 to <1
N,N-Diethylaniline		91-66-7	0.1 to <1
Paraffin		8002-74-2	0.1 to <1
Sodium metaborate		7775-19-1	0.1 to <1
Titanium dioxide		13463-67-7	0.1 to <1
Other components below reportable levels			30 to <40

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.</p> <p>Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p>
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
1,2,3-propanetriol (CAS 56-81-5)	PEL	5 mg/m ³	Respirable fraction.
Calcium carbonate (CAS 1317-65-3)	PEL	15 mg/m ³	Total dust.
		5 mg/m ³	Respirable fraction.
Magnesium carbonate (CAS 546-93-0)	PEL	15 mg/m ³	Total dust.
		5 mg/m ³	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	PEL	15 mg/m ³	Total dust.
		15 mg/m ³	Total dust.

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Styrene, monomer (CAS 100-42-5)	Ceiling	200 ppm
	TWA	100 ppm

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Silicon dioxide (CAS 7631-86-9)	TWA	0.8 mg/m ³	
Talc (CAS 14807-96-6)	TWA	20 mppcf	
		0.3 mg/m ³	Total dust.
		0.1 mg/m ³	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Paraffin (CAS 8002-74-2)	TWA	2 mg/m ³	Fume.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Styrene, monomer (CAS 100-42-5)	STEL	40 ppm	
	TWA	20 ppm	
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Calcium carbonate (CAS 1317-65-3)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Magnesium carbonate (CAS 546-93-0)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Paraffin (CAS 8002-74-2)	TWA	2 mg/m3	Fume.
Silicon dioxide (CAS 7631-86-9)	TWA	6 mg/m3	
Styrene, monomer (CAS 100-42-5)	STEL	425 mg/m3	
	TWA	100 ppm	
Talc (CAS 14807-96-6)	TWA	215 mg/m3	
		50 ppm	
		2 mg/m3	Respirable.

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Styrene, monomer (CAS 100-42-5)	400 mg/g	Mandelic acid plus phenylglyoxylic acid	Creatinine in urine	*
	0.2 mg/l	Styrene	Venous blood	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Styrene, monomer (CAS 100-42-5) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Styrene, monomer (CAS 100-42-5) Skin designation applies.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state	Liquid.
Form	Liquid. Paste
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	1814 °F (990 °C) estimated
Initial boiling point and boiling range	293 °F (145 °C) estimated
Flash point	104.0 °F (40.0 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.1 % estimated
Flammability limit - upper (%)	6.1 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	3 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	914 °F (490 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	9.70 lbs/gal estimated
Explosive properties	Not explosive.
Flammability class	Flammable IC estimated
Oxidizing properties	Not oxidizing.
Percent volatile	18.4 % estimated
Specific gravity	1.17 estimated
VOC	18.14 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Aluminum. Peroxides. Fluorine.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation.

Ingestion Toxic if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Toxic if swallowed. Harmful if inhaled.

Components	Species	Test Results
N,N-Diethylaniline (CAS 91-66-7)		
Acute		
Oral		
LD50	Rat	782 mg/kg
Silicon dioxide (CAS 7631-86-9)		
Acute		
Oral		
LD50	Mouse	> 15000 mg/kg
	Rat	> 22500 mg/kg
Sodium metaborate (CAS 7775-19-1)		
Acute		
Oral		
LD50	Rat	2330 mg/kg
Sodium silicate (CAS 1344-09-8)		
Acute		
Oral		
LD50	Mouse	1100 mg/kg
	Rat	1.1 g/kg
Styrene, monomer (CAS 100-42-5)		
Acute		
Inhalation		
LC50	Mouse	4940 ppm, 2 Hours
	Rat	2770 ppm, 4 Hours
		24 mg/l, 4 Hours
Oral		
LD50	Mouse	316 mg/kg
	Rat	1 g/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Silicon dioxide (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans.
Styrene, monomer (CAS 100-42-5) 2B Possibly carcinogenic to humans.
Titanium dioxide (CAS 13463-67-7) 2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Styrene, monomer (CAS 100-42-5) Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity May damage fertility or the unborn child.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
1,2,3-propanetriol (CAS 56-81-5)		
Aquatic		
Fish LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	51000 - 57000 mg/l, 96 hours
N,N-Diethylaniline (CAS 91-66-7)		
Aquatic		
Crustacea EC50	Water flea (Daphnia magna)	1 - 1.6 mg/l, 48 hours
Fish LC50	Fathead minnow (Pimephales promelas)	16.4 mg/l, 96 hours
Sodium silicate (CAS 1344-09-8)		
Aquatic		
Crustacea EC50	Water flea (Ceriodaphnia dubia)	0.28 - 0.57 mg/l, 48 hours
Fish LC50	Western mosquitofish (Gambusia affinis)	1800 mg/l, 96 hours
Styrene, monomer (CAS 100-42-5)		
Aquatic		
Crustacea EC50	Water flea (Daphnia magna)	3.3 - 7.4 mg/l, 48 hours
Fish LC50	Sheepshead minnow (Cyprinodon variegatus)	5.1 - 16 mg/l, 96 hours
Titanium dioxide (CAS 13463-67-7)		
Aquatic		
Crustacea EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish LC50	Mummichog (Fundulus heteroclitus)	> 1000 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

1,2,3-propanetriol -1.76
N,N-Diethylaniline 3.31
Styrene, monomer 2.95

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1866
UN proper shipping name	Resin Solution
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	B1, B52, IB3, T4, TP1, TP29
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	242

IATA

UN number	UN1866
UN proper shipping name	Resin Solution
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1866
UN proper shipping name	Resin Solution
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

N,N-Diethylaniline (CAS 91-66-7) Listed.

Styrene, monomer (CAS 100-42-5) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Styrene, monomer	100-42-5	10 to <20

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Styrene, monomer (CAS 100-42-5)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

1,2,3-propanetriol (CAS 56-81-5)

Other Flavoring Substances with OSHA PEL's

Styrene, monomer (CAS 100-42-5)

Other Flavoring Substances with OSHA PEL's

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

N,N-Diethylaniline (CAS 91-66-7)
Styrene, monomer (CAS 100-42-5)
Talc (CAS 14807-96-6)
Titanium dioxide (CAS 13463-67-7)

US. Massachusetts RTK - Substance List

1,2,3-propanetriol (CAS 56-81-5)
Calcium carbonate (CAS 1317-65-3)
Magnesium carbonate (CAS 546-93-0)
N,N-Diethylaniline (CAS 91-66-7)
Paraffin (CAS 8002-74-2)
Silicon dioxide (CAS 7631-86-9)
Styrene, monomer (CAS 100-42-5)
Talc (CAS 14807-96-6)
Titanium dioxide (CAS 13463-67-7)

US. New Jersey Worker and Community Right-to-Know Act

1,2,3-propanetriol (CAS 56-81-5)
Calcium carbonate (CAS 1317-65-3)
Magnesium carbonate (CAS 546-93-0)
N,N-Diethylaniline (CAS 91-66-7)
Paraffin (CAS 8002-74-2)
Silicon dioxide (CAS 7631-86-9)
Sodium metaborate (CAS 7775-19-1)
Styrene, monomer (CAS 100-42-5)
Talc (CAS 14807-96-6)
Titanium dioxide (CAS 13463-67-7)

US. Pennsylvania Worker and Community Right-to-Know Law

1,2,3-propanetriol (CAS 56-81-5)
Calcium carbonate (CAS 1317-65-3)
N,N-Diethylaniline (CAS 91-66-7)
Paraffin (CAS 8002-74-2)
Silicon dioxide (CAS 7631-86-9)
Styrene, monomer (CAS 100-42-5)
Talc (CAS 14807-96-6)
Titanium dioxide (CAS 13463-67-7)

US. Rhode Island RTK

N,N-Diethylaniline (CAS 91-66-7)
Styrene, monomer (CAS 100-42-5)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Titanium dioxide (CAS 13463-67-7)

Listed: September 2, 2011

International inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	12-18-2015
Version #	01
HMIS® ratings	Health: 2 Flammability: 3 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 3 Instability: 0
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA BELIEVED TO BE RELIABLE AND THE MANUFACTURER DISCLAIMS ANY LIABILITY INCURRED FROM THE USE OR RELIANCE UPON THE SAME. THE INFORMATION GIVEN IS DESIGNED ONLY AS A GUIDANCE FOR SAFE HANDLING, USE, PROCESSING, STORAGE, TRANSPORTATION, DISPOSAL AND RELEASE AND IS NOT TO BE CONSIDERED A WARRANTY OR QUALITY SPECIFICATION. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This safety information is not a license to use this material as claimed by any patents of third parties. The user alone must finally determine whether a contemplated use of this material will infringe any such patents, and for obtaining any required licenses.
Revision information	This document has undergone significant changes and should be reviewed in its entirety.



PENRAY CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 08/05/2014

Revision date: 08/05/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product name : PENRAY CHLORINATED BRAKE CLEANER

Product code : 4855

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Chlorinated brake cleaner.

1.3. Details of the supplier of the safety data sheet

The Penray Companies, Inc.
440 Denniston Ct.
Wheeling, IL 60090
T (800) 373-6729

Manufactured for:
AIOD
P.O. Box 1861
Montrose, CO 81402
970-240-4176

1.4. Emergency telephone number

Emergency number : (800) 373-6729
CHEMTREC (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin irritation 2

Carcinogenicity 1B

Specific target organ toxicity - Single exposure 3

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07



GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Causes skin irritation. May cause cancer. May cause drowsiness or dizziness.

Precautionary statements (GHS-US) : Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Tetrachloroethylene	(CAS No) 127-18-4	60 - 100	Skin Irrit. 2 Carc. 1B STOT SE 3

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Name	Product Identifier	%	GHS-US classification
Xylenes (o-, m-, p- isomers)	(CAS No) 1330-20-7	3 - 7	Flam. Liq. 3 Acute Tox. 4 (Dermal, Inhalation) Skin Irrit. 2
Phenylethane	(CAS No) 100-41-4	0.5 - 2	Flam. Liq. 2 Acute Tox. 4 (Inhalation) Skin Irrit. 2 Carc. 2 Asp. Tox. 1

* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May be harmful by inhaled. May cause nervous system depression, headache, and weakness leading to unconsciousness.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Treat for surrounding material.
- Unsuitable extinguishing media : Not available.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon, hydrogen chloride.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.

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Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store locked up.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Tetrachloroethylene (127-18-4)		
USA ACGIH	ACGIH TWA (ppm)	25 ppm
USA ACGIH	ACGIH STEL (ppm)	100 ppm
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm

Xylenes (o-, m-, p- isomers) (1330-20-7)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	ACGIH STEL (ppm)	150 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm

Phenylethane (100-41-4)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Safety glasses or goggles are recommended when using product.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid.

Appearance : Clear.

Color : Colorless.

Odor : Solvent.

Odor threshold : No data available.

pH : No data available.

Relative evaporation rate (butylacetate=1) : No data available.

Melting point : No data available.

Freezing point : No data available.

Boiling point : No data available.

Flash point : > 93 °C (> 200 °F)

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Self ignition temperature	: No data available.
Decomposition temperature	: No data available.
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available.
Relative vapor density at 20 °C	: No data available.
Relative density	: 1.52 - 1.62
Solubility	: No data available.
Log Pow	: No data available.
Log Kow	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: No data available.
Explosive properties	: No data available.
Oxidising properties	: No data available.
Explosive limits	: No data available.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Amines. Bases. Strong oxidizing agents. Metals.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon, hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

4855	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 20 mg/l/4h

Tetrachloroethylene (127-18-4)	
LD50 oral rat	2629 mg/kg
LD50 dermal rabbit	> 3228 mg/kg
LC50 inhalation rat	4000 ppm/4h

Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 oral rat	4300 mg/kg
LD50 dermal rabbit	> 1700 mg/kg
LC50 inhalation rat	47635 mg/l/4h

Phenylethane (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15354 mg/kg
LC50 inhalation rat	17.2 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.

PENRAY CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Germ cell mutagenicity : Based on available data, the classification criteria are not met.
Carcinogenicity : May cause cancer.

Tetrachloroethylene (127-18-4)	
IARC group	2A - Probably carcinogenic to humans
National Toxicity Program (NTP) Status	1 - Evidence of Carcinogenicity, 3 - Reasonably anticipated to be Human Carcinogen

Xylenes (o-, m-, p- isomers) (1330-20-7)	
IARC group	3 - Not classifiable

Phenylethane (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicity Program (NTP) Status	1 - Evidence of Carcinogenicity

Reproductive toxicity : Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure) : Based on available data, the classification criteria are not met.
Aspiration hazard : Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation : May be harmful by inhaled. May cause nervous system depression, headache, and weakness leading to unconsciousness.
Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

4855	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

4855	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : No additional information available

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

UN-No. : UN1897

14.2. UN proper shipping name

Proper Shipping Name : Tetrachloroethylene Mixture

Department of Transportation Hazard Classes : 6.1

PENRAY CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Hazard labels



Packing group

: III

14.3. Additional information

Other information

: No supplementary information available.

Special transport precautions

: Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Tetrachloroethylene (127-18-4)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %
Xylenes (o-, m-, p-Isomers) (1330-20-7)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %
Phenylethane (100-41-4)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

15.2. US State regulations

4855

State or local regulations

This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information

Indication of changes

: None.

Date of issue

: 08/05/2014

Other information

: None.

NFPA health hazard

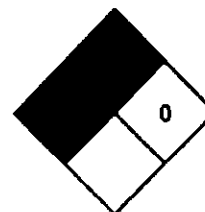
: 2

NFPA fire hazard

: 0

NFPA reactivity

: 0



Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.



PENRAY NON-CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 03/28/2014

Revision date: 03/28/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : PENRAY NON-CHLORINATED BRAKE CLEANER

Product code : 4605

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Brake Cleaner.

1.3. Details of the supplier of the safety data sheet

The Penray Companies, Inc.
440 Denniston Ct.
60090 Wheeling, IL
T (800) 373-6729
rotto@penray.com

1.4. Emergency telephone number

Emergency number : (800) 373-6729
CHEMTREC (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable Liquid 2
Skin irritation 2
Eye irritation 2A
Reproductive toxicity 2 (developmental)
Specific target organ toxicity - Single exposure 3
Specific target organ toxicity - Repeated exposure 2
Aspiration hazard 1

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS02



GHS07



GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Highly flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. Suspected of damaging the unborn child. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated. May be fatal if swallowed and enters airways.

Precautionary statements (GHS-US) : Keep away from heat/sparks/open flames/hot surfaces.— No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Do not breathe gas/mist/vapors/spray. If exposed or concerned: Get medical advice/attention. If on skin (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep cool. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

17 % of the mixture consists of ingredient(s) of unknown acute toxicity.

PENRAY NON-CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Acetone	(CAS No) 67-64-1	40 - 70	Flam. Liq. 2 Eye Irrit. 2A STOT SE 3
Heptane, branched, cyclic and linear	(CAS No) 426260-76-6	15 - 40	Flam. Liq. 2 Skin Irrit. 2 STOT SE 3 Asp. Tox. 1
n-Heptane	(CAS No) 142-82-5	10 - 30	Flam. Liq. 2 Skin Irrit. 2 STOT SE 3
Xylenes (o-, m-, p- isomers)	(CAS No) 1330-20-7	7 - 13	Flam. Liq. 3 Acute Tox. 4 (Dermal, Inhalation) Skin Irrit. 2
Toluene	(CAS No) 108-88-3	0.5 - 1.5	Flam. Liq. 2 Acute Tox. 4 (Oral) Skin Irrit. 2 Repr. 2 STOT SE 3 STOT RE 2 Asp. Tox. 1

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause drowsiness, dizziness and central nervous system depression. May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Powder, water spray, foam, carbon dioxide.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Vapours may be heavier than air and may travel along the ground to a distant ignition source and flash back. Use water spray to keep fire-exposed containers cool.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

PENRAY NON-CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

6.2. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Do not breathe gas/mist/vapors/spray. Do not swallow. Handle and open container with care. Use only non-sparking tools. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store locked up. Keep cool. Keep away from heat, sparks, and flame.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Acetone (67-64-1)		
USA ACGIH	ACGIH TWA (ppm)	500 ppm
USA ACGIH	ACGIH STEL (ppm)	750 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	2400 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

n-Heptane (142-82-5)		
USA ACGIH	ACGIH TWA (ppm)	400 ppm
USA ACGIH	ACGIH STEL (ppm)	500 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	2000 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	500 ppm

Xylenes (o-, m-, p- isomers) (1330-20-7)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	ACGIH STEL (ppm)	150 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm

Toluene (108-88-3)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm
USA OSHA	OSHA PEL (STEL) (ppm)	150 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm

8.2. Exposure controls

- Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
- Personal protective equipment : Avoid all unnecessary exposure.
- Hand protection : Wear chemically resistant protective gloves.
- Eye protection : Safety glasses or goggles are recommended when using product.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

PENRAY NON-CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Colour	: Colourless.
Odour	: Solvent.
Odour threshold	: No data available.
pH	: No data available.
Relative evaporation rate (butylacetate=1)	: No data available.
Melting point	: No data available.
Freezing point	: No data available.
Boiling point	: ~ 56 °C (~ 133 °F) (Acetone)
Flash point	: ~ -20 °C (~ -4 °F) (Acetone)
Self ignition temperature	: No data available.
Decomposition temperature	: No data available.
Flammability (solid, gas)	: Flammable
Vapour pressure	: No data available.
Relative vapour density at 20 °C	: No data available.
Relative density	: 0.730 - 0.745
Solubility	: No data available.
Log Pow	: No data available.
Log Kow	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: No data available.
Explosive properties	: No data available.
Oxidising properties	: No data available.
Explosive limits	: No data available.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials. Open flame.

10.5. Incompatible materials

Acids. Amines. Bases. Oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

4605	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 20 mg/l/4h
Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg

PENRAY NON-CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

n-Heptane (142-82-5)	
LD50 dermal rabbit	3000 mg/kg
LC50 inhalation rat (mg/l)	103 g/m ³ /4h

Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 oral rat	4300 mg/kg
LD50 dermal rabbit	> 1700 mg/kg
LC50 inhalation rat (ppm)	5000 ppm/4h
LC50 inhalation rat (mg/l)	47635 mg/l/4h

Toluene (108-88-3)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	12124 mg/kg
LD50 dermal rabbit	8390 mg/kg
LC50 inhalation rat (mg/l)	28.1 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.

Xylenes (o-, m-, p- isomers) (1330-20-7)	
IARC group	3

Toluene (108-88-3)	
IARC group	3

Reproductive toxicity	: Suspected of damaging the unborn child.
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: May cause drowsiness, dizziness and central nervous system depression. May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology – general	: May cause long-term adverse effects in the aquatic environment.
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12.2. Persistence and degradability

4605	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

4605	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.
Additional information	: Handle empty containers with care because residual vapours are flammable.

PENRAY NON-CHLORINATED BRAKE CLEANER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

UN-No. : UN1993

14.2. UN proper shipping name

Proper Shipping Name : Flammable liquids, n.o.s. (Acetone, Heptane)

Department of Transportation Hazard Classes : 3

Hazard labels :



Packing group (DOT) : II

14.3. Additional Information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

Acetone (67-64-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag : T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

Heptane; branched, cyclic and linear. (426260-76-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

n-Heptane (142-82-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag : T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

Xylenes (o-, m-, p- isomers) (1330-20-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 - Emission Reporting : 1.0 %

Toluene (108-88-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 - Emission Reporting : 1.0 %

15.2. US State regulations

4605

State or local regulations

This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

IARC	International Agency for Research on Cancer.
	1 - Carcinogenic to humans; 2A - Probably carcinogenic to humans; 2B - Possibly carcinogenic to humans; 3 - Not classifiable; 4 - Probably not carcinogenic to humans.
NTP	National Toxicology Program.
	1 - Evidence of Carcinogenicity; 2 - Known Human Carcinogens; 3 - Reasonably anticipated to be Human Carcinogen; 4 - Substances delisted from report on Carcinogens; 5 - Twelfth Report - Items under consideration.

PENRAY NON-CHLORINATED BRAKE CLEANER

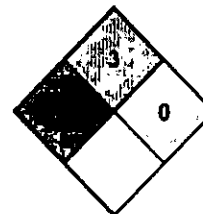
Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 16: Other information

Indication of changes : None.
Date of issue : 03/28/2014
Other information : None.

NFPA health hazard : 2
NFPA fire hazard : 3
NFPA reactivity : 0



This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



SAFETY DATA SHEET

NAPA DOT 3 BRAKE FLUID

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Issue Date: March 5, 2014

Revised: April 2, 2015

Product Name: NAPA DUTY DOT 3 BRAKE FLUID

Synonyms: Brake Fluid

CAS Number: Mixture, see Section 3

Chemical Formula: Mixture

General Use: Brake Fluid

Manufacturer: Warren Unilube, Inc., 915 E. Jefferson, West Memphis, AR 72301

24-HOUR EMERGENCY NUMBER – CHEMTREC: 1-800-424-9300

WARREN UNILUBE PHONE: (800) 428-9284

FAX: (870) 400-3070

Restrictions on Use:

FOR LABELS FOR THE GENERAL PUBLIC: If medical advice is needed, have product container or label at hand.

Keep out of reach of children and animals.

Read label before use.

FOR THE INDUSTRIAL WORKER: Industrial use only.

SECTION 2: HAZARD(S) IDENTIFICATION

Hazard Classification:

OSHA Hazards: Target Organ Effect, Harmful by ingestion, Irritant, Teratogen, Reproductive hazard

Target Organs: Kidney, Liver, Central nervous system, Female reproductive system, Male reproductive system, Blood.

GHS Classification:

Acute toxicity, dermal (Category 5)
Acute toxicity, oral (Category 4)
Skin Irritation (Category 3)
Serious eye damage (Category 1)
Reproductive toxicity (Category 2)

**Signal Word: WARNING****Hazard Statements:**

H302	Harmful if swallowed
H313	May be harmful in contact with skin
H316	Causes mild skin irritation
H318	Causes serious eye damage
H361	Suspected of damaging fertility or the unborn child

Precautionary Statements:

P201	Obtain special instructions before use.
P202	Do not handle until all safety instructions have been read and Understood.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear eye protection / face protection.
P301 +P312	IF SWALLOWED: Call a POISON CENTER or doctor / physician immediately.
P330	IF SWALLOWED: Rinse mouth.
P312	IF ON SKIN: Call a POISON CENTER or doctor / physician if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advise / attention.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P310	IF IN EYES: Immediately call a POISON CENTER or doctor / physician.
P308 + P313	If exposed or concerned: Get medical advice / attention.

20-80% of the mixture consists of ingredients of unknown acute toxicity.

HMIS Classification

Health hazard: 1
 Chronic Health Hazard
 Flammability 1
 Physical hazards 0

NFPA Rating

Health hazard: 1
 Fire: 1
 Reactivity 0

Description of Any Other Hazards Not Otherwise Classified: none known.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS
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<u>INGREDIENT Name:</u>	<u>CAS NUMBER</u>	<u>%wt. or %V</u>
Triethylene Glycol Monomethyl Ether	112-35-6	5-50
Triethylene Glycol Monoethyl Ether	112-50-5	5-50
Triethylene Glycol Monobutyl Ether	143-22-6	5-50
Tetrathylene Glycol Monobutyl Ether	1559-34-8	5-20
Polyethylene Glycol	25322-68-3	5-20
Diethylene Glycol Monobutyl Ether	112-34-5	5-20
Diethylene Glycol	111-46-6	5-15
Diethylene Glycol Monomethyl Ether	111-77-3	<5
Diethylene Glycol Monoethyl Ether	111-90-0	<5
Polyalkylene Glycol Monobutyl Ether	9004-77-7	5-20
Polyalkylene Glycol Monomethyl Ether	23783-42-8	5-20
Polyalkylene Glycols	9038-95-3	5-20
Trade Secret Inhibitor Package	Trade Secret	3

3% of the composition of this material has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURE

EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation continues or persists, get medical advice / attention.

SKIN: Wash with plenty of soap and water. If skin irritation occurs, get medical advice / attention.

INGESTION: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treatment should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak, and disperse vapors.

UNSUITABLE EXTINGUISHING MEDIA: Direct water stream.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate area. Do not use direct water stream to extinguish fires. Do not release runoff from fire control methods to sewers or waterways.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, and unidentified organic compounds.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS: Wear full protective clothing and NIOSH – approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive breathing mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use appropriate personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with spilled material. Insure adequate ventilation. Remove all sources of ignition. Use non-sparking tools and equipment.

PROTECTIVE CLOTHING: Standard work uniform. Impervious gloves. Safety glasses. Personnel should increase PPE level as deemed appropriate in any given situation.

EMERGENCY PROCEDURES:

SMALL SPILLS: Contain and recover liquid when possible. Collect liquid in appropriate container or absorb with an inert material (such as vermiculite or dry sand) and place in chemical waste container. Do not use combustible materials such as sawdust for the cleanup.

LARGE SPILLS:

Containment: Shut off source of leak if safe to do so. Dike far ahead of liquid spill for later disposal. Do not allow material to enter sewers or waterways.

Cleanup: Contain and recover liquid when possible. Collect liquid in appropriate container. Absorb residue with an inert material (such as vermiculite or dry sand) and place in chemical waste container. Do not use combustible materials such as sawdust for the cleanup.

SECTION 7: HANDLING AND STORAGE

HANDLING PRECAUTIONS: May be harmful or fatal if swallowed.

STORAGE REQUIREMENTS: Store in a cool dry, ventilated area.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Controls should be such that adequate ventilation is provided.

VENTILATION: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work place by controlling it at its source.

RESPIRATORY PROTECTION: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA / NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (e.g. cleaning spills, reactor vessels, or storage tanks), wear an SCBA. *Warning! Air purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

EYE PROTECTION: Wear protective eyeglasses or chemical safety goggles, per OSHA eye-and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.

SKIN PROTECTION: Wear chemically protective gloves, boots, aprons and gauntlets to prevent prolonged or repeated skin contact.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Make emergency eyewash stations, safety / quick drench showers and washing facilities available in work areas.

WORK HYGIENIC PRACTICES: Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material especially before eating, drinking or smoking, using the toilet, or applying cosmetics. Separate contaminate work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Discard belts and shoes that cannot be cleaned.

EXPOSURE GUIDELINES:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		USA WEEL
	TWA	STEL	TWA	STEL	TWA	STEL	
Triethylene Glycol Monomethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.

Triethylene Glycol Monoethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Triethylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Tetraethylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Polyethylene Glycol	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	10 mg/m3
Diethylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Diethylene Glycol	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	10 mg/m3
Diethylene Glycol Monomethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	25 ppm
Diethylene Glycol Monoethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Diethylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Polyalkylene Glycol Monobutyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Polyalkylene Glycol Monomethyl Ether	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Polyalkylene Glycols	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Inhibitor Package	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
APPEARANCE AND COLOR: Yellow to amber
ODOR: Mild
FLASH POINT: >275°F (>135°C)
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: not available
AUTO IGNITION TEMPERATURE: not available
DECOMPOSITION TEMPERATURE: not available
VAPOR PRESSURE: not available
ODOR THRESHOLD: not available

VAPOR DENSITY (air = 1): >1

pH: 10.0 – 11.5

RELATIVE DENSITY: 8.33 – 9.02 lb/gal

SPECIFIC GRAVITY (H₂O = 1 AT 4 C): 1.000 – 1.070

MELTING POINT / FREEZING POINT: not available

WATER SOLUBILITY: soluble

OTHER SOLUBILITIES: not available

INITIAL BOILING POINT AND BOILING RANGE: 480°F (248.9°C), boiling range not available

EVAPORATION RATE (BuAc = 1): <0.01

PARTITION COEFFICIENT: n-OCTANOL/WATER: not available

VISCOSITY: not available

REFRACTIVE INDEX: not available

FORMULA WEIGHT: mixture

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: none under normal handling.

STABILITY: stable at room temperature in closed containers under normal storage and handling conditions.

CONDITIONS TO AVOID (STABILITY): none known.

INCOMPATIBILITY (MATERIAL TO AVOID): none known.

HAZARDOUS DECOMPOSITION BY-PRODUCTS: Thermal oxidative decomposition can produce carbon monoxide, carbon dioxide and unknown organic compounds.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

CONDITIONS TO AVOID (POLYMERIZATION): Hazardous polymerization will not occur.

HAZARDOUS POLYMERICATION BY-PRODUCTS: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Swallowing larger amounts may cause nausea and vomiting, abdominal discomfort or diarrhea. May cause dizziness and drowsiness.

ACUTE EFFECTS:

EYE CONTACT: May cause slight eye irritation. May cause slight corneal injury.

SKIN CONTACT: Brief contact is essentially nonirritating to skin.

INHALATION: At room temperature, exposure to vapor is minimal due to low volatility. Mist may cause irritation of the upper respiratory tract.

INGESTION: Toxic or fatal if ingested. For diethylene glycol, a component of this mixture, a lethal dose can be as little as two ounces. Symptoms of diethylene glycol poisoning include severe abdominal cramping, diarrhea, vomiting, sweating, confusion, cardiac abnormalities, neurological abnormalities, infrequent urination, intoxication or CNS depression. If left untreated, product will metabolize to cause metabolic acidosis, renal failure, hyperkalemia, hyponatremia, paralysis, cardiac failure or death. Seek medical attention immediately for poisoning. If ingested, DO NOT wait for symptoms to develop before getting treatment.

TARGET ORGAN EFFECTS: Product is toxic to kidneys, liver, central nervous system and heart. Metabolic products of diethylene glycol produce acidosis and organ toxicity effects.

CHRONIC EFFECTS: May cause dryness or defatting of the skin, dermatitis, or may aggravate existing skin conditions.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Various skin conditions.

ACUTE TOXICITY VALUES

Triethylene Glycol Monomethyl Ether

ORAL LD50 (rat): 11,842 mg/kg
DERMAL LD50 (rabbit): 7,441 mg/kg
INHALATION LC50 (state animal): data unavailable

Triethylene Glycol Monoethyl Ether

ORAL LD50 (state animal): data unavailable
DERMAL LD50 (state animal): data unavailable
INHALATION LC50 (state animal): data unavailable

Tetraethylene Glycol Monobutyl Ether

ORAL LD50 (rat): 5,300 mg/kg
DERMAL LD50 (rabbit): 3,505 mg/kg
INHALATION LC50 (state animal): data unavailable

Polyethylene Glycol

ORAL LD50 (state animal): data unavailable
DERMAL LD50 (state animal): data unavailable
INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monobutyl Ether

ORAL LD50 (rat): 5,660 mg/kg
DERMAL LD50 (rabbit): 2,700 mg/kg
INHALATION LC50 (state animal): data unavailable

Diethylene Glycol

ORAL LD50 (rat): 12,565 mg/kg
DERMAL LD50 (rabbit): 11,890 mg/kg
INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monomethyl Ether

ORAL LD50 (rat): >7,000 mg/kg
DERMAL LD50 (rabbit): >20,400 mg/kg
INHALATION LC50 (state animal): data unavailable

Diethylene Glycol Monoethyl Ether

ORAL LD50 (rat): 10,502 mg/kg
DERMAL LD50 (rabbit): 9,143 mg/kg
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycol Monobutyl Ether

ORAL LD50 (rat): >2,000 mg/kg
DERMAL LD50 (rat): >2,000 mg/kg
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycol Monomethyl Ether

ORAL LD50 (state animal): data unavailable
DERMAL LD50 (state animal): data unavailable
INHALATION LC50 (state animal): data unavailable

Polyalkylene Glycols

ORAL LD50 (state animal): data unavailable
DERMAL LD50 (state animal): data unavailable
INHALATION LC50 (state animal): data unavailable

LISTED CARCINOGEN:

NATIONAL TOXICOLOGY PROGRAM REPORT ON CARCINOGENS: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC LISTED AS POTENTIAL CARCINOGEN: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA LISTED AS POTENTIAL CARCINOGEN: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

SECTION 12: ECOLOGICAL INFORMATION

DATA FROM TOXICITY TESTS ON AQUATIC AND/OR TERRESTRIAL ORGANISMS:

Triethylene Glycol Monoethyl Ether: data unavailable

Triethylene Glycol Monobutyl Ether: data unavailable

Tetraethylene Glycol Monobutyl Ether: data unavailable

Polyethylene Glycol

Fish: LC50 – Leuciscus idus (Golden orfe) <500 mg/l

Daphnia: data unavailable

Diethylene Glycol Monobutyl Ether

Fish: LC50 – Lepomis macrochirus – 1,300 mg/l – 96h

LC50 – Leuciscus idus (Golden orfe) – >1,000 mg/l – 48h

Daphnia: data unavailable

Diethylene Glycol

Fish: LC50 – Pimephales promelas (fathead minnow) – 75,200 mg/l – 96h

LC50 – Carassius auratus (goldfish) – 5,000 mg/l – 24h

Daphnia: EC50 – Daphnia magna (Water flea) - >10,000 mg/l – 24h

Diethylene Glycol Monomethyl Ether

Fish: LC50 – Lepomis macrochirus – 7,500 mg/l – 96h

Daphnia: data unavailable

Diethylene Glycol Monoethyl Ether

Fish: LC50 – Pimephales promelas (fathead minnow) – 9,650 mg/l – 96h

Daphnia: EC50 – Daphnia magna (Water flea) - >3,340 mg/l – 24h

Polyalkylene Glycol Monobutyl Ether: data unavailable

Polyalkylene Glycol Monomethyl Ether: data unavailable

Polyalkylene Glycols: data unavailable

ENVIRONMENTAL FATE: data unavailable for mixture

BIOACCUMULATION POTENTIAL: data unavailable for mixture

POTENTIAL TO MOVE FROM SOIL TO GROUNDWATER: data unavailable for mixture

OTHER ADVERS ENVIRONMENTAL EFFECTS: data unavailable for mixture

SECTION 13: DISPOSAL CONSIDERATIONS

CONTAINERS TO USE: No specific recommendations

RECOMMENDED DISPOSAL METHODS: Whatever cannot be saved for recovery or recycling should be disposed of in an approved waste facility in accordance with Federal, State/Provincial and Local requirements.

PHYSICAL AND CHEMICAL PROPERTIES THAT MAY AFFECT DISPOSAL ACTIVITIES:

No specific information available.

WHENEVER POSSIBLE, MATERIAL SHOULD NOT BE ALLOWED TO ENTER SEWAGE DISPOSAL SYSTEMS.

SPECIAL PRECAUTIONS FOR LANDFILL OR INCINERATION ACTIVITIES: No specific information available.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (49 CFR 172.101)

PROPER SHIPPING NAME: DOT 3 Brake Fluid
DOT Non-Bulk: Not Regulated
DOT Bulk: Not Regulated

IATA

Not Dangerous Goods

IMDG

Not Dangerous Goods

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): all components are listed on the TSCA Inventory

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): None. However, this product contains various ethylene glycols and glycol ethers which are each included as a broad category on the CERCLA Hazardous Substances list.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

311/312 HAZARD CATEGORIES:

Immediate Hazard: yes / no
Delayed Hazard: yes / no
Fire Hazard: yes / no
Pressure Hazard: yes / no
Reactivity Hazard: yes / no

313 REPORTABLE INGREDIENTS: The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-Ethoxyethoxy) ethanol	CAS Number: 111-90-0
2-(2-methoxyethoxy) ethanol	CAS Number: 111-77-3
2-(2-Butoxyethoxy) ethanol	CAS Number: 112-34-5

CLEAN WATER ACT (CWA): None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

CLEAN AIR ACT (CAA): None of the chemicals in the product are listed as Hazardous Air Pollutants.

STATE REGULATIONS:

California: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts:

2-(2-Methoxyethoxy) ethanol CAS Number: 111-77-3

New Jersey:

Triethylene glycol monobutyl ether CAS Number: 143-22-6
Polyethylene glycol CAS Number: 25322-68-3
2-(2-Butoxyethoxy) ethanol CAS Number: 112-34-5
Diethylene glycol CAS Number: 111-46-6
2-(2-Methoxyethoxy) ethanol CAS Number: 111-77-3
2-(2-Ethoxyethoxy) ethanol CAS Number: 111-90-0

Pennsylvania:

Triethylene glycol monobutyl ether CAS Number: 143-22-6
Polyethylene glycol CAS Number: 25322-68-3
2-(2-Butoxyethoxy) ethanol CAS Number: 112-34-5
Diethylene glycol CAS Number: 111-46-6
2-(2-Methoxyethoxy) ethanol CAS Number: 111-77-3
2-(2-Ethoxyethoxy) ethanol CAS Number: 111-90-0

INTERNAL REGULATIONS:

Persistent Organic Pollutants (United Nations): not listed
Initial List of Prior Informed Consent Chemicals (United Nations): not listed
Ozone Depleting Substances (Montreal Protocol): not listed
Greenhouse Gases (Intergovernmental Panel on Climate Change): not listed

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES: All components are listed.

CANADA: DOMESTIC SUBSTANCES LIST: All components are listed.

CANADA WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS):
D2B - Toxic Material at >1%.

CANADIAN ENVIRONMENTAL PROTECTION AGENCY TOXICS LIST: None of the components of this mixture are listed.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES: This material contains components not listed on the EINECS Inventory: Polyalkylene glycols, CAS Number 9038-95-3.

NEW ZEALAND: All components are listed.

PHILLIPPINE INVENTORY OF CHEMICALS AND CHEMICAL SUBSTANCES: All components are listed.

SECTION 16: REGULATORY INFORMATION

Disclaimer: This product is FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH CHILDREN AND ANIMALS. DO NOT TAKE INTERNALLY.

Warren Unilube, Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. No warranty of fitness for any particular purpose, warranty of merchantability, or any other warranty expressed or implied, is made concerning the information provided herein. The information provided herein relates only to the specific product designated and may not be valid where such products is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and of the information referred to herein are beyond the control of Warren Unilube, Warren Unilube expressly disclaims any and all liability as to any results obtained or arising from any of the product or reliance on such information.

For additional product information, please contact Warren Unilube, Inc. at (800) 428-9284.



SAFETY DATA SHEET

1. Identification

Product identifier Brakleen® Brake Parts Cleaner - 19 oz

Other means of identification

Product Code No. 05089 (Item# 1003708)

Recommended use Brake parts cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300

Technical Assistance 800-521-3168

Customer Service 800-272-4620

24-Hour Emergency (CHEMTREC) 800-424-9300 (US)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Gases under pressure Compressed gas

Health hazards Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2B

Sensitization, skin Category 1B

Carcinogenicity Category 1B

Specific target organ toxicity, single exposure Category 3 narcotic effects

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2

Hazardous to the aquatic environment, long-term hazard Category 2

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Contains gas under pressure; may explode if heated. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation. May cause drowsiness or dizziness. May cause cancer.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49 °C/120 °F. Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist/vapors. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention.
Storage	Store locked up. Protect from sunlight. Store in a well-ventilated place. Exposure to high temperature may cause can to burst.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
tetrachloroethylene	perchloroethylene	127-18-4	90 - 100
carbon dioxide		124-38-9	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Dry chemical, CO ₂ , or water spray.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Collect spillage. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices. For product usage instructions, see the product label.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Contents under pressure. Do not handle or store near an open flame, heat or other sources of ignition. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49 °C/120 °F. Protect from sunlight. Store in a well-ventilated place. Store in cool place. Exposure to high temperature may cause can to burst. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m3
		5000 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
tetrachloroethylene (CAS 127-18-4)	Ceiling	200 ppm
	TWA	100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
tetrachloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3
		30000 ppm
	TWA	9000 mg/m3 5000 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
tetrachloroethylene (CAS 127-18-4)	0.5 mg/l	Tetrachloroethylene	Blood	*
	3 ppm	Tetrachloroethylene	End-exhaled air	*

* - For sampling details, please see the source document.

Exposure guidelines**US - Minnesota Haz Subs: Skin designation applies**

tetrachloroethylene (CAS 127-18-4)

Skin designation applies.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower should be available when handling this product. Provide eyewash station.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear protective gloves such as: Nitrile. Viton/butyl. Polyvinyl alcohol (PVA). Silver Shield®.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties**Appearance****Physical state**

Liquid.

Form

Aerosol.

Color

Colorless.

Odor

Irritating.

Odor threshold

50 ppm

pH

Not available.

Melting point/freezing point

-8.1 °F (-22.3 °C) estimated

Initial boiling point and boiling range

250.3 °F (121.3 °C) estimated

Flash point	None.
Evaporation rate	Very fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	1428.3 hPa estimated
Vapor density	5.76 (air = 1)
Relative density	1.62
Solubility(ies)	
Solubility (water)	0.02 % (77 °F (25 °C))
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	97.8 % estimated
Other information	
Partition coefficient (oil/water)	2.88

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases.
Hazardous decomposition products	Hydrogen chloride. Trace amounts of chlorine and phosgene. Carbon oxides. Halogenated materials. Carbonyl halides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes eye irritation.
Ingestion	Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness or dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity	Not known.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	May cause an allergic skin reaction.

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	May cause cancer.
IARC Monographs. Overall Evaluation of Carcinogenicity	
tetrachloroethylene (CAS 127-18-4)	2A Probably carcinogenic to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	
Not listed.	
US. National Toxicology Program (NTP) Report on Carcinogens	
tetrachloroethylene (CAS 127-18-4)	Reasonably Anticipated to be a Human Carcinogen.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential	
Partition coefficient n-octanol / water (log Kow)	
tetrachloroethylene	3.4
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	This material and its container must be disposed of as hazardous waste. Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	D039: Waste Tetrachloroethylene F001: Waste Halogenated Solvent - Spent Halogenated Solvent Used in Degreasing F002: Waste Halogenated Solvent - Spent Halogenated Solvent
US RCRA Hazardous Waste U List: Reference	
tetrachloroethylene (CAS 127-18-4)	U210
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, poison, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	6.1(PGIII)
Label(s)	2.2, 6.1
Packing group	Not applicable.
Special precautions for user	Forbidden from transportation by air.
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, non-flammable, containing substances in Division 6.1, Packing Group III

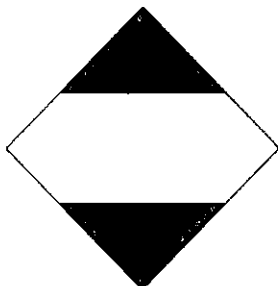
Transport hazard class(es)

Class	2.2
Subsidiary risk	6.1(PGIII)
Packing group	Not applicable.
ERG Code	2P
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

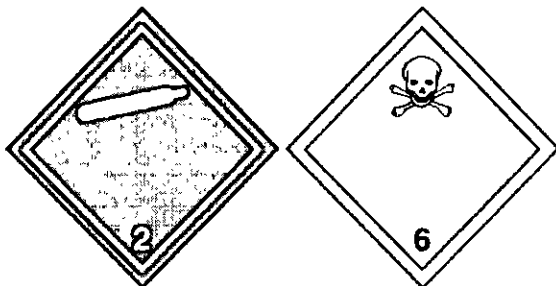
IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.2
Subsidiary risk	6.1(PGIII)
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes, but exempt from the regulations.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

tetrachloroethylene (CAS 127-18-4)

CERCLA Hazardous Substance List (40 CFR 302.4)

tetrachloroethylene (CAS 127-18-4)

CERCLA Hazardous Substances: Reportable quantity

tetrachloroethylene (CAS 127-18-4) 100 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

tetrachloroethylene (CAS 127-18-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories Gas under pressure
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
tetrachloroethylene	127-18-4	90 - 100

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

carbon dioxide (CAS 124-38-9)
tetrachloroethylene (CAS 127-18-4)

US. Massachusetts RTK - Substance List

carbon dioxide (CAS 124-38-9)
tetrachloroethylene (CAS 127-18-4)

US. Pennsylvania Worker and Community Right-to-Know Law

carbon dioxide (CAS 124-38-9)
tetrachloroethylene (CAS 127-18-4)

US. Rhode Island RTK

carbon dioxide (CAS 124-38-9)
tetrachloroethylene (CAS 127-18-4)

California Proposition 65



WARNING: Cancer - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

carbon tetrachloride (CAS 56-23-5) Listed: October 1, 1987
tetrachloroethylene (CAS 127-18-4) Listed: April 1, 1988

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

tetrachloroethylene (CAS 127-18-4)

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 0 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as a Brake Cleaner. This product is not compliant to be sold for use in California and New Jersey. This product is compliant in all other states.

VOC content (CA) 0 %

VOC content (OTC) 0 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-12-2019

Revision date 09-15-2020

Prepared by Allison Yoon

Version # 03

Further information CRC # 491G/1002481

Disclaimer The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision information This document has undergone significant changes and should be reviewed in its entirety.

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 05/20/2015

Reviewed on 05/20/2015

1 Identification

- **Product identifier**
- **Trade name:** SOLDER-IT™ Iroda Brand Butane – Part # BU-5, CF-30C
- **Article number:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Fuel
- **Restrictions on use:** See Sections 8 and 10 for further information.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
SOLDER-IT, INC.
404 Irvington Street
Pleasantville, NY 10570
914-747-1092
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Gas 1 H220 Extremely flammable gas.



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.

- **Additional information:**

There are no other hazards not otherwise classified that have been identified.
0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS04

- **Signal word Danger**

- **Hazard statements**

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

- **Precautionary statements**

P210 Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.

P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

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P381 Eliminate all ignition sources if safe to do so.
 P410+P403 Protect from sunlight. Store in a well-ventilated place.

Hazard description:

WHMIS-symbols:

As of 11 February 2015, the current WHMIS system is being replaced by the GHS system. This is the classification under the older system.

A - Compressed gas

B1 - Flammable gas



Classification system:

NFPA ratings (scale 0 - 4)



Health = 0

Fire = 4

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 0

Fire = 4

Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

75-28-5	isobutane	Flam. Gas 1, H220 Press. Gas, H280	60-80%
106-97-8	butane	Flam. Gas 1, H220 Press. Gas, H280	20-40%

Additional information:

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

4 First-aid measures

Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

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- **After skin contact:**
In cases of frostbite, rinse with plenty of water. Do not remove clothing.
If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Unlikely route of exposure.
Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
Dizziness
Disorientation
- **Danger** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
If necessary oxygen respiration treatment.
Treat frost-bitten areas appropriately.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** In case of fire: Use foam, powder, or carbon dioxide for extinction.
- **For safety reasons unsuitable extinguishing agents:** Water stream.
- **Special hazards arising from the substance or mixture**
Danger of receptacles bursting because of high vapor pressure if heated.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Eliminate all ignition sources if safe to do so.
Cool endangered receptacles with water fog.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Keep away from ignition sources.
Protect from heat.
- **Environmental precautions:** For large spills, suppress gases/fumes/haze with water fog.
- **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Send for recovery or disposal in suitable receptacles.

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- **Reference to other sections**

- See Section 7 for information on safe handling.

- See Section 8 for information on personal protection equipment.

- See Section 13 for disposal information.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

- Keep away from heat and direct sunlight.

- Open and handle receptacle with care.

- Use only in well ventilated areas.

- Keep receptacles tightly sealed.

- Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

- **Information about protection against explosions and fires:**

- Keep ignition sources away - Do not smoke.

- Protect from heat.

- Protect against electrostatic charges.

- Emergency cooling must be available in case of nearby fire.

- Pressurized container: protect from sunlight and do not expose to temperatures exceeding 120 °F / 49 °C, i.e. electric lights. Do not pierce or burn, even after use.

- Fumes can combine with air to form an explosive mixture.

- Do not spray on a naked flame or any incandescent material.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

- Store in a cool location.

- Observe official regulations on storing packagings with pressurized containers.

- **Information about storage in one common storage facility:**

- Store away from foodstuffs.

- Store away from oxidizing agents.

- **Further information about storage conditions:**

- Store in cool, dry conditions in well-sealed receptacles.

- Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

- Protect from heat and direct sunlight.

- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

75-28-5 isobutane

TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

EV (Canada) Long-term value: 800 ppm

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LMPE (Mexico)	Long-term value: 1000 ppm
---------------	---------------------------

106-97-8 butane

REL (USA)	Long-term value: 1900 mg/m ³ , 800 ppm
TLV (USA)	Short-term value: 2370 mg/m ³ , 1000 ppm
EL (Canada)	Short-term value: 750 ppm Long-term value: 600 ppm
EV (Canada)	Long-term value: 800 ppm
LMPE (Mexico)	Long-term value: 1000 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Engineering controls:** No further relevant information available.

· **Breathing equipment:**

Not required under normal conditions of use.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**

Gloves not required under normal conditions of use.

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Eye protection:**



Safety glasses

Follow OSHA or EU guidelines concerning the use of protective eyewear.

· **Body protection:** Not required under normal conditions of use.

· **Limitation and supervision of exposure into the environment**

No further relevant information available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Compressed gas

Color: Colorless

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

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Trade name: SOLDER-IT Butane Part # BU-5, CF-30C

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· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-11 °C (12 °F)
· Flash point:	-60 °C (-76 °F)
· Flammability (solid, gaseous):	Extremely flammable liquefied gas.
· Auto-ignition temperature:	365 °C (689 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	1.5 Vol %
Upper:	8.5 Vol %
· Vapor pressure at 20 °C (68 °F):	3000 hPa (2250 mm Hg)
· Density at 20 °C (68 °F):	0.41 g/cm ³ (3.421 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
 Danger of receptacles bursting because of high vapor pressure if heated.
 Pressurized container: Do not pierce or burn, even after use.
- **Possibility of hazardous reactions**
 Develops readily flammable gases / fumes.
 Flammable.
 Reacts with oxidizing agents.
 Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
- **Conditions to avoid**
 Keep ignition sources away - Do not smoke.
 Store away from oxidizing agents.

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Trade name: SOLDER-IT Butane Part # BU-5, CF-30C

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· **Incompatible materials:** No further relevant information available.

11 Toxicological information

· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:** None.· **Primary irritant effect:**· **on the skin:** No irritant effect.· **on the eye:** No irritating effect.· **Sensitization:** No sensitizing effects known.· **Subacute to chronic toxicity:** No further relevant information available.· **Additional toxicological information:**

Asphyxiant gas.

Inhalation of concentrated vapors as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

· **Carcinogenic categories**· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Probable Routes of Exposure**

Inhalation.

Eye contact.

Skin contact.

· **Acute effects (acute toxicity, irritation and corrosivity):** May cause drowsiness or dizziness.· **Repeated Dose Toxicity:** No further relevant information available.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:** No further relevant information available.· **Persistence and degradability:** No further relevant information available.· **Behavior in environmental systems:**· **Bioaccumulative potential:** No further relevant information available.· **Mobility in soil:** No further relevant information available.· **Additional ecological information:**· **General notes:**Avoid emission into atmosphere. Product shows a high atmospheric residence time and is justified suspected to influence the O₂/O₃ balance in the stratosphere.

Generally not hazardous for water

· **Other adverse effects:** No further relevant information available.

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Trade name: SOLDER-IT Butane Part # BU-5, CF-30C


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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Waste disposal key:** EPA RCRA Code (USA): D001 Ignitable waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN2037
- **UN proper shipping name**
-  Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).
- **DOT** Receptacles, small, containing gas (Gas cartridges)
- **ADR** 2037 RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)
- **IMDG** RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES)
- **IATA** GAS CARTRIDGES
- **Transport hazard class(es)**
- **DOT**
- 
- **Class** 2 Gases
- **Label** 2.1

- **ADR**
- 
- **Class** 2 5F Gases
- **Label** 2.1

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Trade name: SOLDER-IT Butane Part # BU-5, CF-30C

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· **IMDG, IATA**

· Class	2 Gases
· Label	2.1
· Packing group	
· DOT, ADR, IMDG, IATA	Not Regulated
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Gases
· EMS Number:	F-D,S-U
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN2037, Receptacles, small, containing gas (Gas cartridges), 2.1

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 355 (extremely hazardous substances):
--

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):
--

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California)

· Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:
--

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:
--

None of the ingredients is listed.

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Printing date 05/20/2015

Reviewed on 05/20/2015

Trade name: **SOLDER-IT Butane Part # BU-5, CF-30C**

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- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **State Right to Know Listings**

None of the ingredients is listed.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

106-97-8 | butane

- **Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of preparation / last revision** 05/20/2015 / -

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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Trade name: SOLDER-IT Butane Part # BU-5, CF-30C

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Flam. Gas 1: Flammable gases, Hazard Category 1
Press. Gas: Gases under pressure: Compressed gas

Sources

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com

FilmFree Advanced Cleaning Formula

Revision Date 9/25/2015

1. Identification of the substance/preparation and company

Product Name : FilmFree Advanced Cleaning Formula

Product Code : FF-83110

End Uses : Floor Spot Cleaner

Company Identification :

Cal-Flor Accessory Systems
 1000 Cal Oak Road, Oroville, CA 95965
 Information Phone : (530) 534-1426
 Emergency Phone : (888) 277-3567
 Website Address : www.Cal-Flor.com

2. Hazards identification

Classification:

Eye irritation : Category 2

Label Hazard Statement:

CAUTION : Eye irritant. Avoid contact with eyes.



Potential Health Effects :

- Eye : Can cause severe irritation, redness, tearing, blurred vision.
- Skin : Short contact – no irritation. Prolonged or frequently repeated contact can cause irritation.
- Ingestion : Can cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- Inhalation : Excessive inhalation of vapors can cause nasal and respiratory irritation.

Chronic Overexposure : No information available.

Teratology and Reproduction Information : No information available.

Aggravation of Pre-Existing Conditions : No information available.

OSHA Hazard Communication Standard : This product is defined as hazardous by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

3. Composition / Information on Ingredients

Component	CAS #	Weight %
2-Butoxyethanol	111-76-2	<3%
Ammonia Hydroxide (25%)	1336-21-6	<3%
Water	7732-18-5	>95%

4. First aid measures

Eye Contact : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact : Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Inhalation : If overcome by vapor, move person to fresh air. Restore respiration if necessary. Get medical attention if injury develops.

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Ingestion : Rinse mouth. If conscious give 1 glass of water to dilute. Do NOT induce vomiting. Immediate medical attention is required.

Notes for Physician : Treat symptomatically. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.

5. Fire-Fighting measures

Protective equipment: Wear fully protective suit. Mouth respiratory protective device. Do not inhale explosion gases or combustion gases.

Extinguishing Media: CO2, sand, extinguishing powder.

Flash point: Not available

Auto ignition Temperature: Not Applicable.

Special fire & explosion hazards: None.

Exiting using media: Dry Chemical, Carbon Dioxide, and Foam

Unusual Fire or Explosion Hazards: None.

6. Accidental release measures

Small Spill : Absorbent liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill : White or scrape up any material. Wash area thoroughly with detergent and water; ventilate adequately with good fresh air movement at floor level.

Measures for environmental protection : Do not allow much product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.

7. Handling and storage

Information for safe handling : Wash thoroughly after handling. Use only in a well ventilated area. Do not get on skin or in eyes. Do not ingest or inhale. |

Storage : Emptied containers and may contain product residue; therefore, all precautions given this sheet must be observed. Store in a cool place, out of hot sun and below 100°F.

8. Exposure Controls / Personal Protection :

Ingredients	CAS #	ACGIH TLV		OSHA PEL	
		TWA	STEL	PEL	STEL
2-Butoxyethanol	111-76-2	20 ppm	N/Av	50 ppm (skin)	N/Av
Ammonia	1336-21-6	25 ppm	35 ppm	50 ppm	N/Av

Ventilation and Engineering Controls : Provide sufficient ventilation to maintain exposure below TLV's.

Respiratory Protection : None required when used as intended.

Body Protection : None required when used as intended.

Protective Gloves : None required when used as intended.

Eye Protection : None required when used as intended.

9. Physical and chemical properties

General Information

Form : Viscous Liquid

Color : Clear

Odor : Slight

Melting point/melting range :	32° F
Boiling point/Boiling range :	212° F
Flash point :	Not available
Self-igniting :	Not
Danger explosion :	Product does not present an explosion hazard
Density: Relative density :	<1 (water=1)
Density: Vapor density :	Not available
Evaporation rate :	Not available
Solubility in water :	Total
PH-Value :	Not available
Viscosity :	Not available

10. Stability and reactivity

Chemical Stability :	The product is stable.
Incompatibility :	Avoid contact with strong oxidizing agents.
Hazardous Decomposition Products :	The following combustion products may be generated: carbon dioxide, carbon monoxide, various hydrocarbons.
Hazardous Polymerization :	Hazardous polymerization will not occur.

11. Toxicological information

Toxicity to Animals :	This product has not been tested as a whole
Chronic / Carcinogenicity :	Not listed by ACGIH, IARC, NIOSH, NTP or OSHA
Effects on Humans :	This product has not been tested as a whole.
Other Toxic Effects on Humans :	None
On the Skin :	Irritating effect possible
On the Eye :	Irritating effect possible
Routes of Exposure :	Inhalation, skin contact, eye contact

12. Ecological information

Ecotoxicological effects :	Not available
Aquatic toxicity :	Not available

13. Disposal considerations

Product : Must be disposed of in accordance with applicable Federal, state, and local regulations.
Recommendation : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

14. Transport information

Land Transport (ADR-RID):	Not regulated.
Sea Transport (IMDG) [English only]:	Not regulated.
Air Transport (ICAO-IATA) [English only]:	Not regulated

15. Regulatory information

HCS Classification: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200
U.S. Federal Regulation: None
TSCA inventory: All components are listed or exempted.

SARA 301/302/303: No chemicals in this product are listed as extremely hazardous substances in 40 CFR 355. Emergency Planning and Notification.

SARA 304: No chemicals in this product require reporting under the requirement of 40 CFR 355. Emergency Planning and Notification (SARA extremely hazardous substances listed in Appendix A to Part 355 or CERCLA hazardous substances listed in Table 302.4 of 40 CFR part 302).

SARA 313: This product contains no chemicals in excess of the applicable de minimis concentration that are subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Table 372.65).

Specific state and local regulations should be consulted to determine if there are any additional requirements. Because many States and localities have added requirements or incorporated the Federal contents in their own forms; Tier I & II forms should be obtained from the State Emergency Response Commission (SERC).

US State Right to Know Laws: California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer.

Other U.S. State "Right to Know" Lists: The following chemicals are specifically listed by individual States: 2-butoxyethanol (CA, MA, MN, NJ, PA, RI); Ammonium hydroxide (CA, MA, NJ, PA).

16. Other information

NFPA Ratings : Health = 1; Fire = 1; Reactivity = 0

HMIS Ratings : Health = 1; Fire = 1; Reactivity = 0

Other Ratings : Xi: Irritant Xn: Harmful

DISCLAIMER OF LIABILITY

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may be applicable.



ScratchAway Safety Data Sheet

Revision date: 1/6/17

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Names:		Product Codes
ScratchAway	8oz	SA92258
ScratchAway Vinyl	4oz	SA92253

Relevant identified Uses: Flooring & Furniture Surface Treatment

Uses advised against: N/A

Cal-Flor Accessory Systems
1000 Cal Oak Rd. - Oroville, Ca. 95965
Emergency Telephone Number: (530) 534-1426

SECTION 2 - HAZARDS IDENTIFICATION

Signal Word: Warning

Classification of the substance or mixture:

Classification (GHS-US)
Serious Eye Damage/Eye Irritation 2B H320

Hazard statements:

- May be harmful if inhaled
- May be harmful if swallowed
- May be harmful in contact with skin

Hazard Rating	
Flammability	0
Health	1
Reaction	0

Precautionary statements:

- IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.
- IF IN EYES:** Eye Irritation - 2B; Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF ON SKIN:** Non-irritating. Wash with plenty of soap and water.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS#</u>	<u>Percent (%)</u>
Water	7732-18-5	60-65%
Paraffinic Oil	8012-95-1	6-15%
Sorbitan trioleate	26266-58-0	3-5%
Polyoxyethylene sorbitan monostearate	9005-67-8	5%
Ethylene oxide-Nonylphenol polymer	9016-45-9	<3%
Alcohols, C12-15 ethoxylated	68131-39-5	<3%
Tall Oil Fatty Acid	61790-12-3	<3%
2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, ethenylbenzene, ethyl 2-propenoate and methyl 2-methyl-2-propenoate	63744-68-3	<10%
2-(2-ethoxyethoxy)ethanol	111-90-0	<2%

SECTION 4 - FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen and seek medical attention.



ScratchAway Safety Data Sheet

Skin: Wash with mild soap and water for 15 minutes. Seek medical attention if irritation develops. Remove contaminated clothing and laundry before reuse.

Eye: Immediately flush with water for 15 minutes. Seek medical attention if irritation develops.

Ingestion: Do not induce vomiting. Get immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Extinguishing Media: Foam, carbon dioxide, and dry chemical.

Unsuitable extinguishing media: None known

Flammability: Not Flammable

Flash Point: > 200 °F (93.3 °C)

Autoignition Temperature: Not Determined.

Special Fire Fighting Procedures: Evacuate personnel to a safe area. Keep containers cool with water spray. Avoid breathing decomposition products. Wear self-contained breathing apparatus and full body protection.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedure: Collect for disposal. Clean up remaining materials from spill with suitable absorbent. Small spills may be absorbed with non-reactive absorbent (sand) and placed in suitable, covered, labeled containers. For large spills provide diking or other appropriate containment to keep material from spreading. Prevent large spills from entering sewers or waterways. If diked material can be pumped, store recovered material in compatible drums for recovery or disposal. Observe all personal protection equipment recommendations.

Environmental precautions: Avoid release to the environment.

SECTION 7 - HANDLING AND STORAGE

Keep Out Of Reach Of Children. Wash thoroughly after handling. Keep container tightly closed. Keep only in original container. Keep in a cool and dry location, away from incompatible materials.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Not normally required.

Respiratory protection: Not normally required.

Eye protection: Goggles or glasses may be used.

Skin protection: Rubber gloves may be used.

Other protective clothing or equipment: Access to eye wash and safety shower.

Work Hygienic Practices: The usual precaution for the handling of chemicals should be observed.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White liquid

Odor: Mild

Specific Gravity (H₂O = 1): ~ 1

Solubility in Water: Disperses

Boiling Point: Similar to water

pH: 7 (Neutral)

Vapor Pressure (mmHg): Not determined

Volatile Organic Compounds (VOCs): <1%

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable.

Conditions to Avoid: None currently known.

Incompatible Materials: Avoid contact with alkalis and strong oxidizers.

Hazardous Decomposition Products: Thermal decomposition includes oxides of carbon.

Hazardous Polymerization: Will not occur.



ScratchAway Safety Data Sheet

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicity:

Low Toxicity

Oral LD50 Rat: >1704 mg/kg;

Dermal LD50 Rabbit: >687 mg/kg

Inhalation: No hazard expected

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Effects: No known significant effects or critical hazards.

Aquatic Ecotoxicity: Conclusion/Summary: Not available

Biodegradability: Conclusion/Summary: Not available

SECTION 13 - DISPOSAL CONSIDERATIONS

Follow federal, provincial or state and local government requirements for disposal.

SECTION 14 - TRANSPORTATION INFORMATION

NOT REGULATED BY DOT, IATA OR IMO

Hazard Class: NONE

ID Number: NONE

SECTION 15 - REGULATORY INFORMATION

Toxic Substances Control Act (TSCA): All the ingredients are listed on the inventory are not required to be listed.

Canadian Domestic Substance List (DSL): All ingredients are listed.

SARA: Section 313 (Toxic Chemical Release Reporting) 40 CFR 372 – None of the ingredients are listed.

CERCLA: None

California Prop. 65 Components: None

WHMIS Classification: OSHA & WHMIS: SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) and Canadian WHMIS regulations (Controlled Products Regulations under the Hazardous Products Act).

SECTION 16 - OTHER INFORMATION

This product is sold to consumers for household use in containers of relatively small volume (i.e. 5 gallon or less in size). This SDS has been developed to address safety concerns affecting those individuals working in warehouses and other places where large numbers of these containers are stored, as well as those affecting potential users of this product in industrial /occupational settings.

All pertinent health, safety and environmental information have been presented in this document, per the requirements of the US Federal OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canadian WHMIS.

NOTICE

The information and recommendations set forth herein are believed to be true and accurate. Because some of the information is derived from information provided from suppliers, and because Cal-Flor A.S. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for you information and consideration, and Cal-Flor A.S. assumes no responsibility from use or reliance thereon. It is the responsibility of the user of Cal-Flor A.S. products to comply with all applicable federal, state and local laws and regulations.

SAFETY DATA SHEET

1. Identification

Product number 1000036031
Product identifier 12 OZ MAC'S CARB & CHOKE CLEANER LT 12PK
Company information NAPA BALKAMP
2601 Stout Heritage Parkway
Plainfield, IN 46168 United States
Company phone General Assistance 1-317-754-3900
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 01
Recommended use Cleaner
Recommended restrictions None known.

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Health hazards Serious eye damage/eye irritation Category 2
Reproductive toxicity (the unborn child) Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Specific target organ toxicity, repeated exposure Category 2
OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetone		67-64-1	80 - 90
Carbon Dioxide		124-38-9	2.5 - 10
Toluene		108-88-3	2.5 - 10
Distillates (petroleum), Hydrotreated Light		64742-47-8	1 - 2.5
Methyl Acetate		79-20-9	1 - 2.5
Other components below reportable levels			0.01 - 0.1

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
Environmental precautions	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe gas. Avoid contact with eyes. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 2 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m ³ 1000 ppm
Carbon Dioxide (CAS 124-38-9)	PEL	9000 mg/m ³ 5000 ppm
Methyl Acetate (CAS 79-20-9)	PEL	610 mg/m ³ 200 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
Methyl Acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m ³ 30000 ppm
	TWA	9000 mg/m ³ 5000 ppm
Methyl Acetate (CAS 79-20-9)	STEL	760 mg/m ³ 250 ppm
	TWA	610 mg/m ³ 200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Toluene (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

Toluene (CAS 108-88-3)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3)

Skin designation applies.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear suitable protective clothing. Use of an impervious apron is recommended.

Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance****Physical state**

Gas.

Form

Aerosol.

Color

Not available.

Odor

Not available.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

113.51 °F (45.29 °C) estimated

Flash point

5.4 °F (-14.8 °C) estimated

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	2.5 % estimated
Flammability limit - upper (%)	12.2 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	80 - 100 psig @20C estimated
Vapor density	Not available.
Relative density	0.856 estimated
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	896 °F (480 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Heat of combustion (NFPA 30B)	25.62 kJ/g estimated
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Aluminum.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Narcotic effects.

Components	Species	Test Results
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Acetone (CAS 67-64-1)

Acute

Dermal

LD50

Guinea pig

> 7426 mg/kg, 24 Hours

> 9.4 ml/kg, 24 Hours

Rabbit

> 7426 mg/kg, 24 Hours

> 9.4 ml/kg, 24 Hours

Components	Species	Test Results
Inhalation		
LC50	Rat	55700 ppm, 3 Hours 132 mg/l, 3 Hours 50.1 mg/l
Oral		
LD50	Rat	5800 mg/kg 2.2 ml/kg

Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg
> 2000 mg/kg, 24 Hours

Inhalation

LC50 Rat > 7.5 mg/l, 6 Hours
> 4.6 mg/l, 4 Hours

Oral

LD50 Rat > 5000 mg/kg

Methyl Acetate (CAS 79-20-9)

Acute

Dermal

LD50 Rat > 2000 mg/kg, 24 Hours

Inhalation

LC100 Rabbit 98.4 mg/l, 4 Hours

Oral

LD50 Rat 6482 mg/kg

Toluene (CAS 108-88-3)

Acute

Dermal

LD50 Rabbit > 5000 mg/kg, 24 Hours

Inhalation

LC50 Mouse 6405 - 7436 ppm, 6 Hours
5320 ppm, 8 Hours
Rat 5879 - 6281 ppm, 6 Hours
25.7 mg/l, 4 Hours

Oral

LD50 Rat > 5000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Toluene (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Suspected of damaging the unborn child.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not likely, due to the form of the product.
Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 21.6 - 23.9 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss) 4740 - 6330 mg/l, 96 hours
Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)		
Aquatic		
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss) 2.9 mg/l, 96 hours
Methyl Acetate (CAS 79-20-9)		
Aquatic		
Algae	IC50	Algae 120.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia 1026.7 mg/L, 48 Hours
Fish	LC50	Fathead minnow (Pimephales promelas) 295 - 348 mg/l, 96 hours
Toluene (CAS 108-88-3)		
Aquatic		
Algae	IC50	Algae 433.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia 7.645 mg/L, 48 Hours
		Water flea (Daphnia magna) 5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon, silver salmon (Oncorhynchus kisutch) 8.11 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential**Partition coefficient n-octanol / water (log Kow)**

Acetone	-0.24
Methyl Acetate	0.18
Toluene	2.73

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, (each not exceeding 1 L capacity)
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking.

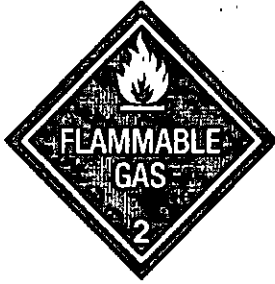
IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	None
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1) Listed.
Toluene (CAS 108-88-3) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Toluene	108-88-3	2.5 - 10

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1) 6532
Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1) 35 %WV
 Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1) 6532
 Toluene (CAS 108-88-3) 594

US state regulations**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Acetone (CAS 67-64-1)
 Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
 Carbon Dioxide (CAS 124-38-9)
 Methyl Acetate (CAS 79-20-9)
 Toluene (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
 Carbon Dioxide (CAS 124-38-9)
 Methyl Acetate (CAS 79-20-9)
 Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
 Carbon Dioxide (CAS 124-38-9)
 Methyl Acetate (CAS 79-20-9)
 Toluene (CAS 108-88-3)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
 Toluene (CAS 108-88-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Acetaldehyde (CAS 75-07-0) Listed: April 1, 1988

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Methanol (CAS 67-56-1) Listed: March 16, 2012
 Toluene (CAS 108-88-3) Listed: January 1, 1991

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 01-30-2018

Version # 01

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SAFETY DATA SHEET

SECTION 1 PRODUCT and COMPANY INFORMATION

TRADE NAME: **Castle® Endura™**

PRODUCT TYPE: Heavy Duty Penetrating Grease
PRODUCT CODE: C1630

MANUFACTURED FOR: Castle Products, Inc.
424 St. Paul Street
Rochester, NY 14605
(800) 876-0222
EMERGENCY (585) 275-3232

SECTION 2 HAZARDS IDENTIFICATION

Physical hazards	Flammable aerosols	Category 1
Health hazards	Acute toxicity, inhalation	Category 4
	Serious eye damage/eye irritation	Category 2A
OSHA defined hazards	Not classified.	

Label elements



Signal word	Danger
Hazard statement	Extremely flammable aerosol. Causes serious eye irritation. Harmful if inhaled.
Precautionary statement	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye protection/face protection.
Response	If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention.
Storage	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Environmental hazards	Hazardous to the aquatic environment, acute hazard Category 3 Hazardous to the aquatic environment, long-term hazard Category 3
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetone		67-64-1	10 - 20
Lubricating Oils (petroleum), C15-30, Hydrotreated Neutral Oil-based		72623-86-0	10 - 20

Chemical name	Common name and synonyms	CAS number	%
Lubricating Oils (petroleum), C20-50, Hydrotreated Neutral Oil-based		72623-87-1	10 - 20
Petrolatum		8009-03-8	10 - 20
Propane		74-98-6	10 - 20
Isobutane		75-28-5	2.5 - 10
Heptane, branched, cyclic and linear		426260-76-6	1 - 2.5
Naphtha (petroleum), Hydrotreated Light		64742-49-0	1 - 2.5
Cyclohexane		110-82-7	0.1 - 1
Other components below reportable levels			20 - 40

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing media	Alcohol resistant foam. Dry powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Environmental precautions

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 2 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m ³ 1000 ppm
Cyclohexane (CAS 110-82-7)	PEL	1050 mg/m ³ 300 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m ³ 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Cyclohexane (CAS 110-82-7)	TWA	100 ppm
Isobutane (CAS 75-28-5)	STEL	1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm
Cyclohexane (CAS 110-82-7)	TWA	1050 mg/m ³ 300 ppm
Isobutane (CAS 75-28-5)	TWA	1900 mg/m ³ 800 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m ³ 1000 ppm

Biological limit values

ACGIH Biological Exposure Indices Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	

* - For sampling details, please see the source document.

Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Other	Wear suitable protective clothing.
Respiratory protection	If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

Appearance	
Physical state	Gas.
Form	Aerosol.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	166.18 °F (74.55 °C) estimated
Flash point	-156.0 °F (-104.4 °C) propellant estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.8 % estimated
Flammability limit - upper (%)	5.8 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	488 °F (253.33 °C) estimated
Decomposition temperature	Not available.

Viscosity	Not available. ;
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0.313 estimated

SECTION 10 STABILITY and REACTIVITY DATA

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Nitrates. Fluorine. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Harmful if inhaled.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Harmful if inhaled.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<u>Acute</u>		
Dermal		
LD50	Guinea pig	> 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours
	Rabbit	> 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours
Inhalation		
LC50	Rat	55700 ppm, 3 Hours 132 mg/l, 3 Hours 50.1 mg/l
Oral		
LD50	Rat	5800 mg/kg 2.2 ml/kg
Cyclohexane (CAS 110-82-7)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 32880 mg/m3, 4 Hours > 5540 ppm, 4 Hours
Oral		
LD50	Rabbit	> 5000 mg/kg

Components	Species	Test Results
	Rat	> 5000 mg/kg
Isobutane (CAS 75-28-5)		
<u>Acute</u>		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l
Lubricating Oils (petroleum), C15-30, Hydrotreated Neutral Oil-based (CAS 72623-86-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
		> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Rat	2.18 mg/l, 4 Hours
Oral		
LD50	Rat	> 2000 mg/kg
Lubricating Oils (petroleum), C20-50, Hydrotreated Neutral Oil-based (CAS 72623-87-1)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
		> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Rat	2.18 mg/l, 4 Hours
Oral		
LD50	Rat	> 2000 mg/kg
Naphtha (petroleum), Hydrotreated Light (CAS 64742-49-0)		
<u>Acute</u>		
Dermal		
LD50	Guinea pig; Rabbit	> 9.4 ml/kg, 24 Hours
	Rabbit	> 1900 mg/kg, 24 Hours
Inhalation		
LC50	Rat	> 5000 mg/m ³ , 4 Hours
		> 4980 mg/m ³
		> 4980 mg/m ³ , 4 Hours
		> 4.96 mg/l, 4 Hours
		13700 ppm, 4 Hours
Oral		
LD50	Rat	4820 mg/kg
Petrolatum (CAS 8009-03-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
	Rat	> 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Propane (CAS 74-98-6)		
<u>Acute</u>		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes

Components	Species	Test Results
		52 %, 120 Minutes
	Rat	1355 mg/l
		658 mg/l/4h

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not likely, due to the form of the product.

SECTION 12 ECOLOGICAL INFORMATION

Components	Species	Test Results
Ecotoxicity	Harmful to aquatic life with long lasting effects.	
Acetone (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 21.6 - 23.9 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss) 4740 - 6330 mg/l, 96 hours
Cyclohexane (CAS 110-82-7)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 23.03 - 42.07 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential		
Partition coefficient n-octanol / water (log Kow)		
Acetone		-0.24
Cyclohexane		3.44
Isobutane		2.76
Propane		2.36
Mobility in soil	No data available.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14 TRANSPORT INFORMATION

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, (each not exceeding 1 L capacity)
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.

Environmental hazards
 Marine pollutant No.
 EmS F-D, S-U
 Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
 Packaging Exceptions LTD QTY
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.
 DOT



IATA; IMDG



SECTION 15 REGULATORY INFORMATION

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1) Listed.

Cyclohexane (CAS 110-82-7) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Cyclohexane	110-82-7	0.1 - 1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Isobutane (CAS 75-28-5)

Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1) 6532

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1) 6532

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Acetone (CAS 67-64-1)

Isobutane (CAS 75-28-5)

Lubricating Oils (petroleum), C15-30, Hydrotreated Neutral Oil-based (CAS 72623-86-0)

Lubricating Oils (petroleum), C20-50, Hydrotreated Neutral Oil-based (CAS 72623-87-1)

Naphtha (petroleum), Hydrotreated Light (CAS 64742-49-0)

Petrolatum (CAS 8009-03-8)

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

Isobutane (CAS 75-28-5)

Propane (CAS 74-98-6)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

Isobutane (CAS 75-28-5)

Propane (CAS 74-98-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

Isobutane (CAS 75-28-5)

Propane (CAS 74-98-6)

US. Rhode Island RTK

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

Isobutane (CAS 75-28-5)

Propane (CAS 74-98-6)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16 OTHER INFORMATION

Other: NA-Not Applicable, ND-Not Determined, NE-Not Established.

Disclaimer Terms and Conditions. This SDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The receipt and use of this information constitutes consent to these terms and conditions.

PREPARED: 6/21/93

UPDATED: 9/4/20

PRODUCT #: C1630

valspar

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SAFETY DATA SHEET

Revision date 07-May-2015

Version 1

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 082.2223110

Product Name CHAIN & CABLE LUBE CATERPILLAR

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Lubricants, greases, release products

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Skin sensitization	Category 1
Aspiration toxicity	Category 1
Flammable aerosols	Category 2
Gases under pressure	Liquefied gas

Label elements

Product Code 082.2223110

Page 1 / 8

AGHS - USA OSHA SDS



Signal word

DANGER

HAZARD STATEMENTS

Flammable aerosol
Contains gas under pressure; may explode if heated
May cause an allergic skin reaction
May be fatal if swallowed and enters airways

PREVENTION

Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

RESPONSE

Get medical advice/attention if you feel unwell.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

STORAGE

Store locked up. Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 122 °F (50 °C).

DISPOSAL

Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

Propellant is classified as a simple asphyxiant if released in large quantities: May displace oxygen and cause rapid suffocation.

OTHER HAZARDS

Not applicable.

UNKNOWN ACUTE TOXICITY

0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Distillates, petroleum, hydrotreated heavy naphthenic	64742-52-5	25 - 50
Inorganic Sulfonate	UNKNOWN	0.1 - 0.3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice

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Get medical advice/attention if you feel unwell.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO2, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical

Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by skin contact.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

General Hygiene Considerations

Avoid contact with skin, eyes or clothing. When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Protect from sunlight. Store in a well-ventilated place.

Incompatible materials

Strong oxidizing agents. Acids. Halogens.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Skin and body protection

Wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Hand Protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Thermal Protection

No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Aerosol
Appearance	No information available
Odor	Solvent
Color	clear
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	-91 °C / -132 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	6.75
specific gravity	.81
Solubility(ies)	Not Determined
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Acids. Halogens.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂). Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact	
Not applicable	
Skin Contact	
May cause an allergic skin reaction	
Ingestion	
May be fatal if swallowed and enters airways	
Inhalation	
Not applicable	

Numerical measures of toxicity - Component Information

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Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Distillates, petroleum, hydrotreated heavy naphthenic 64742-52-5	-	-	-
Inorganic Sulfonate UNKNOWN	-	-	-

Numerical measures of toxicity - Product Information

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Not applicable
Serious eye damage/eye irritation Not applicable
Skin sensitization May cause an allergic skin reaction
Respiratory sensitization Not applicable
Germ cell mutagenicity Not applicable
Carcinogenicity Not applicable
Reproductive Toxicity Not applicable
Specific target organ toxicity (single exposure) Not applicable
Specific target organ toxicity (repeated exposure) Not applicable
Aspiration hazard Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
 Environmental precautions Prevent product from entering drains.

Persistence and degradability
 No information available

Bioaccumulation
 No information available

Mobility
 No information available

Other adverse effects No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

14.1 UN/ID no	DOT ORM-D	IMDG UN1950	IATA UN1950
14.2 Proper shipping name	CONSUMER COMMODITY	Aerosols	Aerosols
14.3 Hazard Class		2.1	2.1
14.4 Packing Group			

Product Code 082.2223110

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14.5 Environmental hazard Not applicable

14.6 Special Provisions

Emergency Response Guide Number 126 EmS-No F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

All components are listed or exempt from listing

DSL - Canadian Domestic Substances List

All components are listed or exempt from listing

US Federal Regulations

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard Yes
Fire hazard Yes
Sudden release of pressure hazard Yes
Reactive Hazard No

US State Regulations

Rule 66 status of product

Not photochemically reactive.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Table with 2 columns: Chemical Name, CAS Number. Rows include Proprietary Non-Hazardous Ingredient, Distillates, petroleum, hydrotreated heavy naphthenic, Propane, and Butane.

Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system

Section 16: OTHER INFORMATION

HMIS

Health hazards 3
Flammability 4
Physical hazards 0
Personal Protection X

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Supplier Address

Valspar Coatings
5400 Avenue Of The Cities
Moline, IL 61265
309-762-7546

Prepared By

Product Stewardship

Revision date

07-May-2015

Revision Note

No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

SAFETY DATA SHEET

NAPA MAC's Smooth Lotion Citrus Orange Hand Cleaner

Section 1: Product and Company Identification:

Product Name: NAPA MAC'S Smooth Lotion Citrus Orange Hand Cleaner
Product Use: Heavy-Duty Hand Cleaner
Part's: 5015, 5025
Manufacture/Supplier: Aiken Chemical Company, Inc.
P.O. Box 27147, Greenville, SC 29616
12 Shelter Drive, Greer, SC 29650
Phone Number: (864) 968-1250
1-800-828-1860
Emergency Phone: 1-800-424-9300
Date of Preparation: November 6, 2015

Section 2: Hazards Identification:

Hazard Determination System (HDS): Health, Flammability, Reactivity



Emergency Overview:
Warning: May Cause irritation to the eyes.
Potential Health Effects: See Section 11 for more information.
Likely Routes of Exposure: Eye contact, ingestion.
Eye: May irritate eyes. Can cause redness or tearing
Skin: May cause skin sensitization
Ingestion: Could irritate gastrointestinal tract
Inhalation: None.
Potential Environmental Effects: See Section 12 for more information.

Section 3: Composition / Information on Ingredients:

Ingredient	CAS#	Percent
D-Limonene	5989-27-5	0.1 - 1.0
Sodium Hydroxide	1310-73-2	0.1 - 1.0

Section 4: First Aid Measures:

Eye Contact: Remove contact lenses if present. Immediately flush eyes with large amounts of water for at least 15 minutes, lifting upper and lower eyelids periodically to insure complete flushing. Seek medical attention immediately
Skin Contact: Flush with water
Inhalation: Remove individual to fresh air.
Ingestion: DO NOT induce vomiting. If conscious, dilute by giving 2-3 glasses of water. Seek medical attention immediately

Section 5: Fire Fighting Measures:

Flammability: Not Flammable by WHMIS/OSHA Criteria.
Means of Extinguishing:
Suitable extinguishing media: Use water fog, alcohol foam, carbon dioxide or dry chemical.
Unsuitable Extinguishing Media: Not Available.
Products of Combustion: Not Available.
Explosion Data:
Sensitivity to Mechanical Impact: Not Available.
Sensitivity to Static Discharge: Not Available.
Protection of Firefighters: Keep Upwind of fire. Wear full fire-fighting turn-out gear, (full Bunker gear), and respiratory protection (SCBA)

Section 6: Accidental Release Measures:

Personal Precautions: Use personal protection recommended in section 8.
Environmental Precautions: Not Available.
Methods for Containment: Contain and/or absorb spill with inert material, (e.g. sand, vermiculite), then place in a suitable container. Use appropriate Personal Protective Equipment, (PPE).
Methods for Clean-up: Dispose of in accordance with all local, state and federal regulations.

SAFETY DATA SHEET

NAPA MAC's Smooth Lotion Citrus Orange Hand Cleaner

Other Information: Not Available.

Section 7: Handling and Storage:

Handling: Store above freezing and no more than 100 degrees F. If frozen, allow to thaw and mix thoroughly.

Storage: Avoid freezing if possible and temperatures more than 100°F

Section 8: Exposure Controls/Personal Protections:

Exposure Guidelines:

Ingredient	Exposure Limits			Percent
	OSHA-PEL	ACGIH-TLV	Other Limits	
Sodium Hydroxide:	2 mg/m ³ (TWA)	2 mg/m ³ (Ceiling)		0.1 - 1.0
Engineering Controls:	NA			

Personal Protective Equipment:

Eye/Face Protection: Not Required

Hand Protection: Not Required

Skin and Body Protection: Not Required

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices.

Section 9: Physical and Chemical Properties:

Appearance and Odor:	White translucent gel, Citrus odor
Physical State:	Gel
pH:	6.0 - 7.0
Freezing Point:	~0°C (~32°F)
Boiling Point:	~100°C (~212°F)
Flash Point (Method Used):	>215°F (PMCC)
Evaporation Rate (Butyl Acetate= 1) :	Not Determined
LEL:	Not Determined
UEL:	Not Determined
Vapor Pressure (mm Hg.):	Not Determined
Vapor Density (AIR=1):	Not Determined
Specific Gravity:	1.03
Solubility In Water:	Complete
Melting Point:	NA
Auto-Ignition Temperature:	Not Determined
Percent Volatile, wt%:	< 1%
VOC content, wt. %:	< 1%

Section 10: Stability and Reactivity:

Stability:	Stable under normal storage conditions.
Conditions to Avoid:	Freezing and Temperatures > 100°F
Incompatibility (Materials to Avoid):	None Known.
Hazardous Decomposition or Byproducts:	Oxides of Carbon
Hazardous Polymerization:	Will Not Occur.

Section 11: Toxicology Information:

Effects of Acute Exposure	
Component Analysis:	Not Available

Section 12: Ecological Information:

Ecotoxicity:	Not Available
Persistence/Degradability:	Not Available
Bioaccumulation/Accumulation:	Not Available
Mobility in Environment:	Not Available

SAFETY DATA SHEET

NAPA MAC's Smooth Lotion Citrus Orange Hand Cleaner

Section 13: Disposal Considerations:

Disposal Instructions: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Section 14: Transportation Information:

Proper Shipping Name: Not D.O.T. Regulated
Hazard Class: N/A
ID Number: N/A
Packing Group: N/A
IATA: N/A

Section 15: Regulatory Information:

Chemical Inventories:

TSCA: All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

SARA Section 311: Hazard Category: NA

SARA Section 313: Toxic Release Inventory Chemical: NA

California Safe Drinking Water Enforcement Act (Prop 65): NA

Pennsylvania (Worker and Community Right-to-Know act):

Pennsylvania Special Hazardous Substance List and/or Pennsylvania Environmental Hazardous

Substance list: This material contains the following components that appear on the PA list:

Component	CAS#	Amount
Sodium Hydroxide	1310-73-2	0.1 - 1.0%

New Jersey Right-to-Know Hazardous Substance List:

This material contains the following components that appear on the NJ list:

Component	CAS#	Amount
Sodium Hydroxide	1310-73-2	0.1 - 1.0%

Massachusetts Substance List: This material contains the following components that appear on the MA list:

Component	CAS#	Amount
Sodium Hydroxide	1310-73-2	0.1 - 1.0%

Section 16: Other Information:

NFPA	Health Hazard	Flammability	Instability	Physical & Chemical Hazards
	1	0	0	NA
HMIS	Health Hazard	Flammability	Physical Hazard	Personal Protection
	1	0	0	NA

Prepared By: Aiken Chemical Company, Inc.

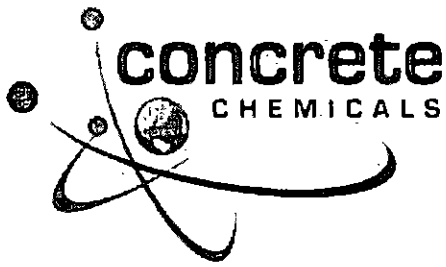
12 Shelter Drive

Greer, SC 29650

Preparation/Revision Date: November 6, 2015

Revision Date:

General Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



Safety Data Sheet

Issue Date: 03-Apr-2014

Revision Date: 12-Dec-2017

Version 2

1. IDENTIFICATION

Product Identifier

Product Name Clean-Off™

Other means of identification

SDS # CON-001

Recommended use of the chemical and restrictions on use

Recommended Use Liquid concrete remover.

Details of the supplier of the safety data sheet

Supplier Address

Concrete Chemicals, Inc.
25385 Hwy 169
Zimmerman, MN 55398

Emergency Telephone Number

Company Phone Number Phone:(844) 289-2532
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Signal Word

Danger

Hazard Statements

May causes skin burns and eye damage



Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a poison center or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a poison center or doctor/physician
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS
--

Chemical Name	CAS No	Weight-%
Organic Acid	79-14-1	15-20
Proprietary alcohol	Proprietary	<5
Proprietary acid	Proprietary	<5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
Skin Contact	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Get medical attention if necessary.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
Ingestion	Rinse mouth. Do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a poison center or doctor/physician.

Most important symptoms and effects

Symptoms	Causes severe skin burns and eye damage. Ingestion may cause severe burns to mouth, throat or stomach.
-----------------	--

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
---------------------------	------------------------

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Foam. Carbon dioxide (CO2).

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Hazardous Combustion Products Carbon dioxide (CO2). Miscellaneous organic compounds.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up If contaminated, absorb with sand, clay or other inert material. Place in appropriate containers for disposal. Notify and consult with proper regulatory authorities.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash face, hands, and any exposed skin thoroughly after handling. Do not breathe vapors or spray mist. Fire extinguishers should be kept readily available. Refer to NFPA 30 and OSHA 1910.106-- Flammable and Combustible Liquids.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Do not transfer contents to bottles or other unlabeled containers. Store away from heat, sparks, flame. Store between 40F(4C) - 100F(37.7C). Store away from incompatible materials. Keep locked up and out of reach of children.

Incompatible Materials Oxidizing materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Proprietary alcohol	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
Proprietary acid	-	15 mg / m ³ (Total)	-

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Protective safety goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.
- Skin and Body Protection** Wear protective gloves. Refer to 29 CFR 1910.138 for appropriate skin and body protection.
- Respiratory Protection** Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Mild
Appearance	Slightly hazy green liquid	Odor Threshold	Not determined
Color	Slightly hazy green		
Property	Values	Remarks • Method	
pH	2.1-2.5		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	100 °C / 212 °F		
Flash Point	Not determined		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Liquid-not applicable		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	Not determined		
Vapor Density	Not determined		
Specific Gravity	1.15		
Water Solubility	Not determined		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto-ignition Temperature	Not determined		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	Not determined		
Explosive Properties	Not determined		

Oxidizing Properties Not determined
Density 9.6 lb/gal

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

See Sec. 7 Handling & Storage. To avoid thermal decomposition, do not overheat.

Incompatible Materials

Oxidizing materials.

Hazardous Decomposition Products

Carbon dioxide (CO₂). Miscellaneous organic compounds.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.
Skin Contact Causes severe skin burns.
Inhalation Avoid breathing vapors or mists.
Ingestion Do not ingest.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Organic Acid 79-14-1	= 1950 mg/kg (Rat)	-	= 7100 µg/m ³ (Rat) 4 h
Proprietary surfactant	= 1310 mg/kg (Rat)	-	-
Proprietary alcohol	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
Proprietary acid	= 3000 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
---------------	-------	------	-----	------

Proprietary alcohol		Group 3		X
---------------------	--	---------	--	---

Legend

IARC (International Agency for Research on Cancer)
 Group 3 IARC components are "not classifiable as human carcinogens"
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Organic Acid 79-14-1		5000: 96 h Brachydanio rerio mg/L LC50 static		
Proprietary alcohol	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50 11130: 96 h Pimephales promelas mg/L LC50 static		13299: 48 h Daphnia magna mg/L EC50
Proprietary acid		1516: 96 h Lepomis macrochirus mg/L LC50 static		120: 72 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Organic Acid 79-14-1	-1.11
Proprietary alcohol	0.05
Proprietary acid	-1.72

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical Name Proprietary alcohol	California Hazardous Waste Status Toxic Ignitable
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14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. Based on package size, product may be eligible for limited quantity exception.

DOT
 UN/ID No Non-Regulated
 Proper Shipping Name Clean-Off

IATA
 Non-Regulated

IMDG
 Non-regulated

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Organic Acid	Present	X		Present		Present	X	Present	X	X
Proprietary alcohol	Present	X		Present		Present	X	Present	X	X
Proprietary acid	Present	X		Present		Present	X	Present	X	X

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 311/312 Hazard Categories

Acute Health Hazard No
 Chronic Health Hazard No
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Proprietary alcohol -		<5	1.0

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Proprietary alcohol	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	1	0	0	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	0	0	Not determined

Issue Date: 03-Apr-2014
 Revision Date: 12-Dec-2017
 Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



SAFETY DATA SHEET

Issuing Date 27-May-2016

Revision Date 11-Dec-20

Revision Number 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Clorox® Clean-Up® Cleaner + Bleach₁

Other means of identification

Synonyms None

EPA Pesticide registration number 5813-21
Document number US001273

Recommended use of the chemical and restrictions on use

Recommended Use Disinfectant - Non-Aerosol

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name The Clorox Company

Supplier Address 1221 Broadway
Oakland
CA
94612
US

Supplier Phone Number 1-510-271-7000

Emergency telephone number For Medical Emergencies Call: 1-800-446-1014
For Transportation Emergencies, Call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Serious eye damage/eye irritation	Category 2A
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GHS Label elements, including precautionary statements

Emergency Overview

Signal word	Warning
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Hazard Statements
Causes serious eye irritation



Appearance Clear, pale yellow

Physical state Liquid

Odor Fragranced

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection

Precautionary Statements - Response

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Skin

If skin irritation occurs: Get medical advice/attention

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

0.12 % of the mixture consists of ingredient(s) of unknown toxicity

Other information

Toxic to aquatic life with long lasting effects

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Percent	Trade Secret
Sodium hypochlorite	7681-52-9	1-5	*
Sodium hydroxide	1310-73-2	0.1-1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact

Take off contaminated clothing and wash before reuse. Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation	Move victim to fresh air. If symptoms persist, call a physician.
Ingestion	Call a physician or Poison Control Center immediately. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).
<u>Most important symptoms and effects, both acute and delayed</u>	
Most Important Symptoms and Effects	May cause redness and tearing of the eyes.
<u>Indication of any immediate medical attention and special treatment needed</u>	
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Avoid contact with skin and eyes.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. After cleaning, flush away traces with water. Prevent product from entering drains. Dam up.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Incompatible Products Ammonia. Acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur. None required for consumer use.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state	Liquid	Odor	Fragranced
Appearance	Clear, pale yellow	Odor Threshold	No information available
Color	No information available		
Property	Values	Remarks	Method
pH	12.4-12.8	None known	
Melting / freezing point	No data available	None known	
Boiling point / boiling range	No data available	None known	

Flash Point	5001 C / 9034 F	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	1.03	None known
Water Solubility	Soluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing properties	No data available	

Other Information

Softening Point	No data available
Particle Size	No data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known.

Incompatible materials

Ammonia. Acids.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	May cause irritation of respiratory tract.
Eye contact	Irritating to eyes.
Skin contact	Prolonged contact may cause redness and irritation.
Ingestion	Specific test data for the substance or mixture is not available.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	>10000 mg/kg (Rabbit)	-
Sodium hydroxide 1310-73-2	-	1350 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

*IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans*

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity Carcinogenic potential is unknown.

Target Organ Effects Respiratory system. Eyes. Skin. Gastrointestinal tract (GI).

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging Dispose of contents/containers in accordance with local regulations.

US EPA Waste Number D002

California Hazardous Waste Codes 122

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

For shipments less than 5 liters:

DOT - Not Regulated per 49 CFR 171.4(c)(1)

IMDG - Not Restricted per IMDG Code 2.10.2.7 Marine Pollutant exemption

IATA - Not Restricted per IATA Special Provision A197 Environmentally Hazardous Substance exemption

For shipments 5 liters or more:

DOT - Not Regulated per 49 CFR 171.4(c)(1)

IMDG - UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Sodium Hypochlorite), 9, III, Marine Pollutant

IATA - UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Sodium Hypochlorite), 9, III, Marine Pollutant

15. REGULATORY INFORMATION

International Inventories

TSCA All components are listed on the TSCA Inventory

DSL All components are listed either on the DSL or NDSL.

IECSC -

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and

40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			X
Sodium hydroxide 1310-73-2	1000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQRQ 45.4 kg final RQ
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQRQ 454 kg final RQ

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9	X	X	X	X	
Sodium hydroxide 1310-73-2	X	X	X	X	

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide label

WARNING: EYE AND SKIN IRRITANT. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Harmful if swallowed. For sensitive skin or prolonged use, wear gloves. Vapors may irritate. Avoid prolonged breathing of vapors. Use only in well ventilated areas. Not recommended for use by persons with heart conditions or chronic respiratory problems such as asthma, emphysema or obstructive lung disease.

16. OTHER INFORMATION

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 27-May-2016

Revision Date 11-Dec-20

Revision Note No information available

Disclaimer

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End of Safety Data Sheet



SAFETY DATA SHEET

Issuing Date 16-Jun-2016

Revision Date 16-Jun-2016

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Clorox® Disinfecting Wipes1 - Crisp Lemon

Other means of identification

Synonyms None

EPA Pesticide registration number 5813-79

Recommended use of the chemical and restrictions on use

Recommended Use General Purpose Cleaner - Non-aerosol

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name The Clorox Company

Supplier Address 1221 Broadway
Oakland
CA
94612
US

Supplier Phone Number Phone: 1-510-271-7000

Emergency telephone number

Company Emergency Phone Number For Medical Emergencies call: (800) 446-1014
Transportation Emergencies, call Chemtrec: (800) 424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

Emergency Overview

Appearance White

Physical state Pre-Moistened Towelette
(no free liquids)

Odor Lemon

Precautionary Statements - Prevention

None

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

21.5 % of the mixture consists of ingredient(s) of unknown toxicity

Other information

No information available

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Ethylene glycol monoethyl ether	112-25-4	1-5	*
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	85409-23-0	0.1 - 0.2	*
Alkyl C12-18 Dimethylbenzyl Ammonium Chloride	53516-76-0	0.1 - 0.2	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Eye contact

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact

Rinse immediately with plenty of water and seek medical advice. If skin irritation persists, call a physician.

Inhalation

Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. Call a physician or Poison Control Center immediately.

Ingestion

Drink plenty of water. Call a physician or Poison Control Center immediately.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Irritating.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Hazardous Combustion Products

No information available

Explosion Data

Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place.

Incompatible Products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol monohexyl ether 112-25-4	None	None	None
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides 85409-23-0	None	None	None
Alkyl C12-18 Dimethylbenzyl Ammonium Chloride 53516-76-0	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state Pre-Moistened Towelette (no free liquids)
Appearance White
Color No information available
Odor Lemon
Odor Threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	6 - 9 (liquid)	None known	
Melting / freezing point	No data available	None known	

Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.0 (liquid)	None known
Water Solubility	Soluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

None known.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Inhalation	May cause irritation of respiratory tract.
Eye contact	May cause slight irritation.
Skin contact	Substance may cause slight skin irritation.
Ingestion	Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal

irritation, nausea, vomiting and diarrhea.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene glycol monohexyl ether 112-25-4	739 mg/kg (Rat)	721 mg/kg (Rabbit)	>0.5 mg/L (Rat, 4 h)

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.
IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity No known effect based on information supplied.

Target Organ Effects Respiratory system. Eyes. Skin. Gastrointestinal tract (GI).

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)
40.1 mg/kg

ATEmix (dermal)
59.8 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

None known.

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

- Disposal methods** Dispose of in accordance with federal, state and local regulations.
- Contaminated Packaging** Do not reuse empty containers. Dispose of in accordance with federal, state and local regulations.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATION

- DOT** NOT REGULATED
- TDG** NOT REGULATED
- MEX** NOT REGULATED
- ICAO** NOT REGULATED
- IATA** NOT REGULATED
- IMDG/IMO** NOT REGULATED
- RID** NOT REGULATED
- ADR** NOT REGULATED
- ADN** NOT REGULATED

15. REGULATORY INFORMATION

International Inventories

- TSCA** All components are listed on the TSCA Inventory
- DSL** All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ethylene glycol monohexyl ether - 112-25-4	112-25-4	1-5	1.0

SARA 311/312 Hazard Categories

- Acute Health Hazard** No
- Chronic Health Hazard** No
- Fire Hazard** No
- Sudden release of pressure hazard** No
- Reactive Hazard** No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ethylene glycol monoethyl ether 112-25-4			X	X	X
Isopropyl alcohol 67-63-0	X	X	X	X	

EPA Pesticide Registration Number 5813-79

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide label

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

International Regulations

Canada

WHMIS Hazard Class

D2B - Toxic materials

16. OTHER INFORMATION

NFPA	Health Hazards 0	Flammability 0	Instability 0	Physical and Chemical Hazards -
HMIS	Health Hazards 0	Flammability 0	Physical Hazard 0	Personal Protection A

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

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Revision Note No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet



CALPORTLAND®

Safety Data Sheet

***** Section 1 - Product and Company Identification *****

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

Manufacturer Information

CALPORTLAND COMPANY
2025 E. Financial Way
Glendora, CA 91741
Phone: 626-852-6200
www.calportland.com

***** Section 2 - Hazards Identification *****

GHS Classification:

- Acute Toxicity Oral - Category 4
- Acute Toxicity Dermal - Category 4
- Acute Toxicity Inhalation - Category 3
- Skin Corrosion/Irritation - Category 1B
- Eye Damage - Category 1
- Respiratory Sensitization - Category 1
- Skin Sensitization - Category 1
- Carcinogenicity - Category 1A
- Specific Target Organ Toxicity Repeat Exposure - Category 1

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

Danger

Hazard Statements

- Harmful if swallowed.
- Harmful in contact with skin.
- Toxic if inhaled.
- Causes severe skin burns and eye damage.
- Causes serious eye damage.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause an allergic skin reaction.
- May cause cancer.
- Causes damage to organs through prolonged or repeated exposure (lungs).

Safety Data Sheet

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

Precautionary Statements

Prevention

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
In case of inadequate ventilation wear respiratory protection.

Response

If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician. Wash contaminated clothing before reuse.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or doctor/physician.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Storage

Store in a well-ventilated place.
Store in an appropriate container or containment structure.

Disposal

Dispose of contents/container in accordance with local/regional/international regulations.

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
Not Available	Aggregates	36-92
65997-15-1	Cement, portland, chemicals	2-26
68131-74-8	Ashes, residues	0-25
7732-18-5	Water	6-13
14808-60-7	Quartz	5-13

Component Information/Information on Non-Hazardous Components

General Product Information

Trace Elements: Ready-Mix concrete is made from materials mined from the earth. Trace amounts of naturally occurring elements might be detected during chemical analysis of these materials.

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush eyes thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids, to remove all particles. Call physician immediately.

Safety Data Sheet

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

First Aid: Skin

Wash skin with cool water and pH-neutral soap or a mild detergent intended for use on skin. Seek medical treatment in all cases of prolonged exposure wet concrete, liquids from wet concrete products, or prolonged wet skin exposure to the dry ingredients in Ready-Mix concrete.

First Aid: Ingestion

Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.

First Aid: Inhalation

Remove to fresh air. Seek medical help if coughing and other symptoms do not subside. (Inhalation of gross amounts of the dry ingredients in Ready-Mix concrete requires immediate medical attention.)

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.
Non-combustible.

Hazardous Combustion Products

None

Extinguishing Media

Use appropriate extinguishing media for surrounding fire.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Stop the flow of material, if this is without risk.

Materials and Methods for Clean-Up

Collect dry material using a scoop. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Scrape up wet material and place in an appropriate container. Allow the material to harden before disposal.

Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

Wear appropriate personal protective equipment as described in Section 8.

Environmental Precautions

Do not attempt to wash wet concrete down sewers or storm drains.

Prevention of Secondary Hazards

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Avoid prolonged or repeated breathing of dust. Avoid contact with eyes and skin. Promptly remove dusty clothing or clothing which is wet with concrete and launder before reuse. Wash thoroughly after exposure to dust or wet concrete mixtures.

Safety Data Sheet

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

Storage Procedures

Normal temperatures and pressures do not affect the material.

Incompatibilities

Wet Ready-Mix concrete is alkaline. As such it is incompatible with acids, ammonium salts and aluminum metal.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

Cement, portland, chemicals (65997-15-1)

ACGIH: 1 mg/m³ TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

NIOSH: 10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable dust)

Quartz (14808-60-7)

ACGIH: 0.025 mg/m³ TWA (respirable fraction)

NIOSH: 0.05 mg/m³ TWA (respirable dust)

Engineering Measures

Avoid actions that cause dust to become airborne. Use local exhaust or general dilution ventilation to control exposure within applicable limits.

Personal Protective Equipment: Respiratory

Use local or general ventilation to control exposures below applicable exposure limits. NIOSH or MSHA approved particulate filter respirators should be used in the context of respiratory protection program meeting the requirements of the OSHA respiratory protection standard [29 CFR 1910.134] to control exposures when ventilation or other controls are inadequate or discomfort or irritation is experienced. Respirator and/or filter cartridge selection should be based on American National Standards Institute (ANSI) Standards Z88.2 Practices for Respiratory Protection.

Personal Protective Equipment: Hands

Where prolonged exposure to unhardened concrete products might occur, wear impervious gloves to eliminate skin contact. Do not rely on barrier creams; barrier creams should not be used in place of gloves. Periodically wash areas contacted by wet cement or its dry ingredients with a pH neutral soap and water. Wash again at the end of the work. If irritation occurs, immediately wash the affected area and seek treatment.

Personal Protective Equipment: Eyes

When engaged in activities where wet concrete or its dry ingredients could contact the eye, wear safety glasses with side shields or goggles. In extremely dusty environments and unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with wet concrete or its dry ingredients.

Personal Protective Equipment: Skin and Body

Where prolonged exposure to unhardened concrete products might occur, wear impervious clothing to eliminate skin contact. Where required, wear boots that are impervious to water to eliminate foot and ankle exposure. If clothing becomes saturated with wet concrete, it should be removed and replaced with clean dry clothing.

Safety Data Sheet

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

*** Section 9 - Physical & Chemical Properties ***

Appearance:	Gray granular mixture.	Odor:	None
Physical State:	Liquid, semi-solid	pH:	12-13 (in water)
Vapor Pressure:	Not Applicable	Vapor Density:	Not Applicable
Boiling Point:	Not Applicable	Melting Point:	Not Applicable
Solubility (H2O):	Slightly soluble	Specific Gravity:	1.70-3.00
Evaporation Rate:	Not Applicable	VOC:	Not Determined
Octanol/H2O Coeff.:	Not Determined	Flash Point:	None
Flash Point Method:	None	Upper Flammability Limit (UFL):	None
Lower Flammability Limit (LFL):	None	Burning Rate:	None
Auto Ignition:	Not Combustible		

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Unintentional contact with water.

Incompatible Products

Wet Ready-Mix concrete is alkaline. As such it is incompatible with acids, ammonium salts and aluminum metal.

Hazardous Decomposition Products

Will not spontaneously occur. Adding water results in hydration and produces (caustic) calcium hydroxide.

*** Section 11 - Toxicological Information ***

Acute Toxicity

Component Analysis - LD50/LC50

Ashes, residues (68131-74-8)

Oral LD50 Rat >2000 mg/kg

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

Quartz (14808-60-7)

Oral LD50 Rat 500 mg/kg

Safety Data Sheet

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

Potential Health Effects: Skin Corrosion Property/Stimulativeness

Discomfort or pain cannot be relied upon to alert a person to a hazardous skin exposure. Consequently, the only effective means of avoiding skin injury or illness involves minimizing skin contact, particularly contact with wet concrete. Exposed persons may not feel discomfort until hours after the exposure has ended and significant injury has occurred. Exposure during the handling or mixing of the dry ingredients in Ready-Mix concrete may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions. Exposure to wet concrete may cause more severe skin effects including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of (caustic) chemical burns.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Exposure to airborne dust during the handling or mixing of the dry ingredients in Ready-Mix concrete may cause immediate or delayed irritation or inflammation. Eye contact by splashes of wet concrete may cause effects ranging from moderate eye irritation to chemical burns and blindness. Such exposures require immediate first aid (see Section 4) and medical attention to prevent significant damage to the eye.

Potential Health Effects: Ingestion

Although inadvertent ingestion of small quantities of wet concrete or its dry ingredients are not known to be harmful, accidental ingestion of larger quantities can be harmful and requires immediate medical attention.

Potential Health Effects: Inhalation

The ingredients in Ready-Mix concrete contain crystalline silica. Exposure to these ingredients in excess of the applicable TLV or PEL (see Section 2) may cause or aggravate other lung conditions. Exposure to the dry ingredients in Ready-Mix concrete may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system.

Respiratory Organs Sensitization/Skin Sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Some individuals may exhibit an allergic response upon exposure to wet concrete. The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers. Persons already sensitized may react to their first contact with the product. Other persons may first experience this effect after years of contact with wet unhardened concrete products.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects.

Carcinogenicity

A: General Product Information

May cause cancer.

Crystalline Silica: Exposures to respirable crystalline silica are not expected during the normal use of this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease and/or lung cancer. IARC states that crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

B: Component Carcinogenicity

Cement, portland, chemicals (65997-15-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Safety Data Sheet

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

Quartz (14808-60-7)

ACGIH: A2 - Suspected Human Carcinogen

NIOSH: potential occupational carcinogen

NTP: Known Human Carcinogen (respirable size) (Select Carcinogen)

IARC: Monograph 100C [2012] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources); Monograph 68 [1997] (Group 1 (carcinogenic to humans))

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any single exposure specific target organ toxicity effects.

Specified Target Organ General Toxicity: Repeated Exposure

Causes damage to organs through prolonged or repeated exposure (lungs).

Aspiration Respiratory Organs Hazard

This product is not reported to have any aspiration hazards.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

This product is not reported to have any ecotoxicity effects.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Ashes, residues (68131-74-8)

Test & Species

24 Hr EC50 Daphnia magna

Conditions

140 - 2000 mg/L

Persistence/Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for the product.

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

*** Section 14 - Transportation Information ***

DOT Information

Shipping Name: Not Regulated.

Safety Data Sheet

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

*** Section 15 - Regulatory Information ***

Regulatory Information

US Federal Regulations

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Cement, portland, chemicals	65997-15-1	No	Yes	Yes	Yes	Yes	No
Quartz	14808-60-7	No	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Quartz	14808-60-7	1 %

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Cement, portland, chemicals	65997-15-1	Yes	DSL	EINECS
Ashes, residues	68131-74-8	Yes	DSL	EINECS
Water	7732-18-5	Yes	DSL	EINECS
Quartz	14808-60-7	Yes	DSL	EINECS

Safety Data Sheet

Material Name: Ready Mix Concrete, Freshly Mixed Unhardened Concrete

*** Section 16 - Other Information ***

Hazardous Material Information System (HMIS):	Health	1
	Physical Hazard	0
	Personal Protection	B

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

Protective Equipment: Safety glasses, gloves

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY CALPORTLAND, except that the product shall conform to contracted specifications. The information provided herein was believed by CalPortland Company to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for nondelivery of product, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

End of Sheet



Issuing Date 10-Nov-2014

Revision Date 28-Feb-2018

Revision Number 0

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name Cutting Grinding Oil

Other means of identification

Product Code(s) CG-13BK, CG-18, CG-18BK, CG-55

Synonyms Cutting Grinding Oil

Recommended use of the chemical and restrictions on use

Recommended Use A water-soluble oil for grinding, drilling, machining and cooling. One gallon can make up to 40 gallons of cutting oil. Cutting and Grinding Oil forms a very stable emulsion with excellent rust protection. The emulsion stability promotes rapid settling of grinding dirt. This formulation resists bacterial growth and reduces odor problems.

Uses advised against No information available

Supplier's details

Supplier Address
AGS Company
P.O. Box 729
Muskegon, MI
49443
TEL: 800-253-0403

Emergency telephone number

Emergency Telephone Number CHEM-TEL, INC.
24 Hour Emergency Contact 1-800-255-3924

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Serious Eye Damage/Eye Irritation	Category 2
Carcinogenicity	Category 1A


GHS Label elements, including precautionary statements

Emergency Overview

Signal Word Danger

Hazard Statements

- Causes serious eye irritation
- May cause cancer



Appearance Clear, Cloudy White, Dark amber. **Physical State** Liquid. **Odor** Petroleum.

Precautionary Statements

Prevention

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Wash face, hands and any exposed skin thoroughly after handling.
- Wear eye/face protection.

General Advice

- If exposed or concerned: Get medical attention/advice

Eyes

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.

Storage

- Store locked up.

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable.

Other information

Prolonged or repeated contact may dry skin and cause irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

Cutting Grinding Oil

Chemical Name	CAS-No	Weight %	Trade secret
Petroleum distillates, hydrotreated heavy naphthenic	64742-52-5	60-100	*
Sulfonic acids, petroleum, sodium salts	68608-26-4	15-40	*
2-Butoxyethanol	111-76-2	0.1-1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
Skin Contact	Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.
Inhalation	Move to fresh air.
Ingestion	Clean mouth with water and afterwards drink plenty of water.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects No information available

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available

Specific Hazards Arising from the Chemical

No information available.

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Ensure adequate ventilation.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE**Precautions for safe handling**

Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³

Appropriate engineering controls

Engineering Measures Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection If splashes are likely to occur, wear: Tightly fitting safety goggles.
Skin and Body Protection No special protective equipment required.
Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid. **Appearance** Clear, Cloudy White, Dark amber.
Odor Petroleum. **Odor Threshold** No information available.

Property	Values	Remarks/ - Method
pH	@ 5%: 8 - 9	None known
Melting Point/Range	Not determined	None known
Boiling Point/Boiling Range	> 500 °F	None known
Flash Point	> 350 °F	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Specific Gravity	0.93 at 60°F	None known
Water Solubility	Emulsifies	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	Negligible	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	>100 SUS @ 100 °F	None known

Flammable Properties Not flammable

Explosive Properties No data available
Oxidizing Properties No data available

Other information

VOC Content (%) Not determined

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	There is no data available for this product.
Eye Contact	Contact with eyes may cause serious eye irritation based on the components present within the product.
Skin Contact	There is no data available for this product.
Ingestion	There is no data available for this product.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization No information available
Mutagenic Effects No information available
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Petroleum distillates, hydrotreated heavy naphthenic	A2	Group 1	Known	X
2-Butoxyethanol	A3	Group 3		

Reproductive Toxicity No information available
STOT - single exposure No information available
STOT - repeated exposure No information available
Aspiration Hazard No information available.

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral 27260 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Petroleum distillates, hydrotreated heavy naphthenic 64742-52-5		LC50 96 h: > 5000 mg/L (Oncorhynchus mykiss)		EC50 48 h: > 1000 mg/L (Daphnia magna)
2-Butoxyethanol 111-76-2		LC50 96 h: = 1490 mg/L static (Lepomis macrochirus) LC50 96 h: = 2950 mg/L (Lepomis macrochirus)		EC50 24 h: 1698 - 1940 mg/L (Daphnia magna) EC50 48 h: > 1000 mg/L (Daphnia magna)

Persistence and Degradability No information available

Bioaccumulation

Chemical Name	Log Pow
2-Butoxyethanol	0.81

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Contact supplier for inventory compliance status
DSL/NDSL Contact supplier for inventory compliance status

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
2-Butoxyethanol	111-76-2	1	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Petroleum distillates, hydrotreated heavy naphthenic				X	
2-Butoxyethanol	X	X	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA Health Hazard 1 Flammability 0 Instability 0 Physical and Chemical Hazards -

HMIS Health Hazard 1* Flammability 0 Physical Hazard 0 Personal Protection X

*Indicates a chronic health hazard.

Prepared By Product Stewardship
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 1-800-572-6501

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General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet



SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label	: Deep Creep
Product Code(s)	: DC-14
Recommended use of the chemical and restrictions on use	: Lubricating oil Use pattern: Consumer use; professional use.
Chemical family	: Mixture.
Name, address, and telephone number of the supplier	: Sea Foam Sales Company 510 North Chestnut Street Chaska, MN, USA 55347
Name, address, and telephone number of the manufacturer	: Refer to supplier
Supplier's Telephone Number	: (952) 938-4811
24 Hr. Emergency Telephone Number	: INFOTRAC - (800) 535-5053 (Within Continental US); (352) 323-3500 (Outside US) NOTE: INFOTRAC emergency number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.



SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical : Clear liquid contained in a pressurized aerosol can. Petroleum hydrocarbon odor.

Most important hazards: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012).

Hazardous classification:

- Flammable aerosol - Category 1
- Gases under pressure – Compressed gas
- Serious eye damage/eye irritation - Category 2B
- Specific target organ toxicity - single exposure - Category 3
- Aspiration toxicity - Category 1

Label elements

The following label information is applicable only to the United States according to OSHA Regulations (29 CFR 1910.1200) (Hazcom 2012):

Signal Word

DANGER!

Hazard statement(s)

- Extremely flammable aerosol. Contains gas under pressure; may explode if heated.
- Causes eye irritation.
- May cause respiratory irritation.
- May cause drowsiness and dizziness.
- May be fatal if swallowed and enters airways.
- Causes mild skin irritation.

Precautionary statement(s)

- Keep away from heat, sparks and open flame - No smoking.
- Do not spray on an open flame or other ignition source.
- Pressurized container: Do not pierce or burn, even after use.
- Protect from sunlight. Do not expose to temperatures exceeding 50° C/122° F.
- Avoid breathing vapor or mist.
- Use only outdoors or in a well-ventilated area.
- Wash hands and face thoroughly after handling.
- Wear eye/face protection.



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IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye and skin irritation persists, get medical advice/attention.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local regulation.



Other Hazards

Other hazards which do not result in classification:

Propellant is a simple asphyxiant. Burning produces noxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.

Environmental precautions: See ECOLOGICAL INFORMATION, Section 12.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS		
Chemical Name	CAS #	Concentration
Hydrocarbon blend*	Blend	< 95%
Isopropanol	67-63-0	10.0 - 30.0
Carbon dioxide	124-38-9	3.0 - 7.0

*Note: The exact concentrations of the above listed chemicals are being withheld as a trade secret

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

<i>Ingestion</i>	: Not a likely route of exposure. Seek immediate medical attention/advice. Do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
<i>Inhalation</i>	: Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention.
<i>Skin contact</i>	: Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention.
<i>Eye contact</i>	: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Most important symptoms and effects, both acute and delayed

: Causes eye irritation.
May cause respiratory irritation.
May cause drowsiness and dizziness.
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

: None known. Treat symptomatically. This product is a CNS depressant.



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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media : Dry chemical, alcohol foam, carbon dioxide, and water fog.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

: Extremely flammable aerosol. Will be ignited by heat, sparks, flame, or other ignition sources. Vapors are heavier than air and collect in confined and low-lying areas. The product is insoluble and floats on water. Closed containers are contained under pressure and may explode if exposed to excess heat for a prolonged period of time.

Flammability classification (OSHA 29 CFR 1910.106)

: Flammable aerosol - Category 1

Explosion Data: Sensitivity to Mechanical Impact / Static Discharge

: Not expected to be sensitive to mechanical impact. May be sensitive to static discharge. Vapors in the flammable range may be ignited by a static discharge of sufficient energy.

Hazardous combustion products

: Carbon oxides; Nitrogen oxides (NOx); Sulphur oxides; Other unidentified organic compounds; irritating fumes and smoke.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece, operated in positive pressure mode.

Special fire-fighting procedures : Move containers from fire area, if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Direct water or foam spray may cause frothing which can increase the intensity and range of the fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Methods and material for containment and cleaning up

: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools. Soak up with inert absorbent material. Do not use combustible absorbents, such as sawdust. Pick up and transfer to properly labeled containers. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities.

Special spill response procedures

: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).

US CERCLA Reportable quantity (RQ): None.



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SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

: Wear protective gloves and eye/face protection. Use only in well-ventilated areas. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Pressurized container: Do not pierce or burn, even after use. Keep away from heat, sparks and open flame. - No smoking. Take precautionary measures against static discharges. Use explosion-proof ventilating equipment. Always replace cap after use. Do not eat, drink or smoke when using this product. Empty containers retain residue (liquid and/or vapor) and can be dangerous. Wash thoroughly after handling.

Conditions for safe storage

: Store in a cool, dry, well-ventilated area. Store locked up. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. No smoking. Protect from sunlight. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area.

Incompatible materials

: Strong oxidizing agents; Acids; Caustics.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Chemical Name	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Hydrocarbon blend	N/Av	N/Av	500 ppm (as petroleum distillates, naphtha)	N/Av
Isopropanol	200 ppm	400 ppm	400 ppm ; 980 mg/m ³	N/Av
Carbon dioxide	5000 ppm	30000 ppm	5000 ppm ; 9000 mg/m ³	N/Av

Exposure controls

Ventilation and engineering measures

: Provide mechanical ventilation in confined spaces. Use explosion-proof equipment.

Respiratory protection

: If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised.

Skin protection

: Gloves impervious to the material are recommended. Advice should be sought from glove suppliers. Wear long sleeved shirt and pants to minimize exposed skin.

Eye / face protection

: Chemical splash goggles must be worn when handling this material. A full face shield may also be necessary.

Other protective equipment

: Depending on conditions of use, an impervious apron should be worn. An eyewash station and safety shower should be made available in the immediate working area.

General hygiene considerations

: Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.



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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Clear liquid, contained in a pressurized aerosol can.
Odor	: Petroleum hydrocarbon odor/solvent.
Odor threshold	: No information available.
pH	: No information available.
Melting/Freezing point	: No information available.
Initial boiling point and boiling range	: 180° F
Flash point	: 54°F
Flashpoint (Method)	: Liquid
Evaporation rate (BuAe = 1)	: >1 Slower than ether.
Flammability (solid, gas)	: Extremely flammable Level 3 aerosol.
Lower flammable limit (% by vol.)	: 2.1 (propellant) (Lower explosion limit)
Upper flammable limit (% by vol.)	: 8.5 (propellant) (Upper explosion limit)
Oxidizing properties	: None known.
Explosive properties	: Not explosive.
Vapor pressure	: 80-90 psig.
Vapor density	: >1 Heavier than air.
Relative density / Specific gravity	: 0.77 (concentrate)
Solubility in water	: Slight.
Other solubility(ies)	: No information available.
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution	: No information available.
Auto-ignition temperature	: No information available.
Decomposition temperature	: No information available.
Viscosity	: No information available.
Volatiles (% by weight)	: No information available.
Volatile organic Compounds (VOC's)	: No information available.
Absolute pressure of container	: No information available.
Flame projection length	: > 15 cm and < 100 cm
Other physical/chemical comments	: Chemical heat of combustion: 34 kJ/g



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SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not normally reactive.
Chemical stability	: Stable under normal storage and handling conditions.
Possibility of hazardous reactions	: Hazardous polymerization does not occur.
Conditions to avoid	: Avoid heat and open flame. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.
Incompatible materials	: None known.
Hazardous decomposition products	: None known. Refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation	: YES
Routes of entry skin and eye	: YES
Routes of entry ingestion	: YES
Routes of exposure skin absorption	: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

<i>Sign and symptoms inhalation</i>	: May cause irritation to the nose, throat and upper respiratory tract. Exposure to high vapor concentration can cause dizziness, nausea and central nervous system depression. Saturated vapors can be encountered in confined spaces and/or under conditions of poor ventilation. Propellant is a simple asphyxiant. May displace oxygen in breathing air and lead to suffocation and death, particularly in confined spaces.
<i>Sign and symptoms ingestion</i>	: Not an expected route of entry under normal conditions of use. However, if the product is sprayed directly into mouth and large amounts of the liquid concentrate are swallowed, it may cause irritation to the mouth, throat and stomach. May cause central nervous system depression. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
<i>Sign and symptoms skin</i>	: May cause mild skin irritation. If product is sprayed directly on skin, symptoms of frostbite may be experienced including numbness, prickling and itching.
<i>Sign and symptoms eyes</i>	: May cause moderate to severe irritation. If product is sprayed directly into the eyes, could cause freezing of the eye.

Potential chronic health effects	: Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin. Prolonged overexposure to product can result in permanent central nervous system changes. May cause lung inflammation and lung damage with extreme exposures.
Mutagenicity	: Not expected to be mutagenic in humans.
Carcinogenicity	: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects and teratogenicity	: Not expected to have other reproductive effects.
Sensitization to material	: Not expected to be a skin or respiratory sensitizer.
Specific target organ effects	: Eyes, skin, respiratory system, digestive system, central nervous system. The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects. The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Irritancy	: Moderate to severe eye irritant. Mild skin irritant.
Medical conditions aggravated by overexposure	: None known or reported by the manufacturer.



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- Synergistic materials** : None known or reported by the manufacturer.
- Toxicological data** : The calculated ATE values for this mixture are:
ATE oral = 15,748 mg/kg
ATE dermal = 6,452 mg/kg
ATE inhalation (mists) = 5.23 mg/L/4H
- Other important toxicological hazards** : None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity** : No data is available on the product itself. The product contains the following substances which are hazardous for the environment: Hydrocarbon blend. All other ingredients in these products are not considered acutely toxic for the environment or are at such low levels they do not affect environmental toxicity.
- Persistence and degradability** : The product itself has not been tested. Contains: Isopropanol; Hydrocarbon blend. Isopropanol is considered to be readily biodegradable. The Hydrocarbon blend is considered to be readily biodegradable.
- Bioaccumulation potential** : The product itself has not been tested. Contains: Isopropyl alcohol. The LogKow for isopropyl alcohol is 1.0 and its Bioconcentration Factor (BCF) is 0.05.
- Mobility in soil** : The product itself has not been tested.
- Other adverse environmental effects** : None known.

SECTION 13. DISPOSAL CONSIDERATIONS

- Handling for disposal** : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. Empty containers retain residue (liquid and/or vapor) and can be dangerous. Do not cut, weld, drill or grind on or near this container.
- Methods of disposal** : Dispose of in accordance with federal, provincial and local hazardous waste laws. Contact your local, state or federal environmental agency for specific rules. For assistance with your waste management needs, contact EMCO's Waste Services Division at (262) 658-4000.
- RCRA** : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	UN1950	Aerosols, flammable, (each not exceeding 1 L capacity)	2.1	none	
49CFR/DOT Additional information	Domestic US ground shipments may be shipped as Limited Quantity. Refer to 49CFR section 173.306 for additional information, including maximum weight of outer package.				

- Special precautions for user** : Appropriate advice on safety must accompany the package. Keep away from heat, sparks and open flame. - No smoking.
- Environmental hazards** : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : This information is not available.



Sea Foam Sales Company
510 North Chestnut Street
Chaska, MN, USA 55318

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SECTION 15. REGULATORY INFORMATION

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

US CERCLA Reportable quantity (RQ): None.

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: Isopropanol.

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

Other U.S. State "Right to Know" Lists: The following chemicals are specifically listed by individual States: Isopropanol (MA, MN, NJ, CA, PA, RI)

SECTION 16. OTHER INFORMATION

NFPA Ratings:



Disclaimer: Sea Foam Sales Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



Prepared according to Global Harmonized System (GHS) standards

SECTION 1

CHEMICAL PRODUCT IDENTIFICATION

Polaris Sales Inc.
2100 Highway 55
Medina, MN 55340
Tel: 763-542-0500

Product Trade Name:

Polaris Demand Drive Fluid

CAS Number: Mixture
Synonyms/Other: N/A
Part Number(s): N/A
Recommended Use: Specialty Fluid
Restrictions on Use: Not Determined
Created Date: 1/30/2015
Preparation/Revision Date: 1/30/2015
Emergency Phone Number: 1-800-424-9300 (CHEMTREC)
SDS CODE: 10223

SECTION 2

HAZARD IDENTIFICATION

Appearance: Clear, Light Yellow
Odor: Petroleum
Classification: This material is not considered to be hazardous according to the Globally Harmonized System of Classification and Labelling Chemicals (GHS), Third Revised Edition.
Target Organs: Not applicable.
Pictogram(s):
Signal Word: None required.
Hazard Statement: None required.
Other Hazards: Not determined.
Prevention: None required.
Response: None required.
Storage Procedures: None required.
Disposal: None required.
Other: See section 11 for complete health hazard information.

SECTION 3

COMPOSITION OF INGREDIENTS

No Hazardous Substance(s) or Complex Substance(s) Required for Disclosure.

The balance of components do not contribute to the overall classification of the fluid, according to the GHS Standard.

SECTION 4

FIRST AID MEASURES

Eye Contact: If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes, while holding the eyelids open. If eye irritation persists: Get medical advice/attention.
Skin Contact: Call a doctor if you feel unwell.
Inhalation: Get medical advice or attention if you feel unwell or are concerned.
Ingestion: If you feel unwell or concerned: Get medical advice/attention. Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.



Other: No additional information

SECTION 5

FIRE FIGHTING MEASURES

Flash Point: 220°C by Cleveland Open Cup Tester.

Flammable limits: Not determined.

Extinguishing media: Use dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire.

Special firefighting procedures: DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Unusual fire & explosion hazards: Dense smoke may be generated while burning. Toxic fumes, gases or vapors may evolve on burning. High temperatures may create heavy flammable vapors that may settle along ground level and low spots to create an invisible fire hazard.

Byproducts of combustion: Fires involving this product may release oxides of carbon, phosphorus, nitrogen and sulfur; reactive hydrocarbons and irritating vapors.

Autoignition temperature: Not determined.

Explosion data: Not determined. Care should always be exercised in dust/mist areas.

Other: Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6

ACCIDENTAL RELEASE MEASURES

Spill control procedures (land): Immediately turn off or isolate any source of ignition (pilot lights, electrical equipment, flames, heaters, etc.). Evacuate area and ventilate. Personnel wearing proper protective equipment should contain spill immediately with inert materials (sand, earth, chemical spill pads of cotton) by forming dikes. Dikes should be placed to contain spill in a manner that will prevent material from entering sewers and waterways. Large spill, once contained, may be picked up using explosion proof, non-sparking vacuum pumps, shovels, or buckets, and disposed of in suitable containers for disposal. If a large spill occurs notify appropriate authorities. In case of road spill or accident contact Chem-Trec (800-424-9300).

Spill control procedures (water): Try to contain large spills with floating booms to prevent spill from spreading. Remove from surface by skimming or with suitable adsorbents. If a large spill occurs notify appropriate authorities (normally the National Response Center or Coast Guard at 800-424-8802).

Waste disposal method: Do not empty into drains. All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled. See Section 14.

Other: CAUTION - If spilled material is cleaned up using a regulated solvent, the resulting waste mixture will be regulated.

SECTION 7

HANDLING AND STORAGE

Handling procedures: Keep containers closed when not in use. Do not transfer to unmarked containers. Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld, or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

Handling temperatures should not exceed 60°C (140°F) to minimize danger of burns. Open containers carefully in a well ventilated area or use appropriate respiratory protection. Wash thoroughly after handling.



Storage procedures: Store containers away from heat, sparks, open flame, or oxidizing materials. Extended storage at excessive temperatures may produce odorous and toxic fumes from product decomposition.

Additional information: No additional information.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product:

	OSHA TWA	OSHA STEL	ACGIH TWA
Contains highly refined petroleum oil	*5 mg/m ³ (PEL)	*10 mg/m ³	*5 mg/m ³ (TLV)

* Exposure limits not defined. Limits used are for, "oil mist".

TWA – Time Weighted Average is the employee’s average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.
STEL – Short Term Exposure Limit is the employee’s 15-minute time weighted average exposure which shall not be exceeded at any time during a work day unless another time limit is specified.

All base oils, including additive carriers, contain <3.0% DMSO extractable material.

Personal protection: Applicable mainly to persons in repeated contact situations such as packaging of product, service/maintenance, and cleanup/spill control personnel.

Respiratory protection: None required if ventilation is adequate. Otherwise a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. Where misting may occur, wear an MSHA/NIOSH approved (or equivalent) half-mask form dust/mist air purifying respirator.

Eye protection: Eye protection is strongly recommended. Wear safety glasses with side shields or vented/splash proof goggles (ANSI Z87.1 or approved equivalent).

Hand protection: Impervious, chemically resistant gloves such as neoprene or nitrile rubber to avoid skin sensitization and absorption.

Other protection: Use of an apron and overboots of chemically impervious materials such as neoprene or nitrile rubber is recommended based on level of activity and exposure. If handling hot material use insulated protective equipment. Launder soiled clothes. Properly dispose of contaminated leather articles and other materials which cannot be decontaminated.

Local control measures: Use adequate ventilation when working with material in an enclosed area. Mechanical methods such as fume hoods or area fans may be used to reduce localized vapor/mist areas. If vapor or mist is generated when the material handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified exposure. Eyewash stations and showers should be available in areas where this material is used and stored.

Other: Consumption of food and drink should be avoided in work areas where product is present. Always wash hands and face with soap and water before eating, drinking or smoking.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, Light Yellow

Odor: Petroleum

Odor threshold: Not determined.

pH: Not applicable.



Melting/Freezing point:	Not determined.
Initial boiling point:	Not determined.
Boiling range:	Not determined.
Flash point:	220°C.
Evaporation rate:	Not determined.
Flammability:	Not determined.
Upper flammable limit:	Not determined.
Lower flammable limit:	Not determined.
Vapor pressure:	Not determined.
Vapor density:	Not determined.
Relative density:	0.905 @ 15.6°C
Solubility:	Negligible in water, miscible in most petroleum solvents.
Partition Coefficient:	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity:	25.9 cSt at 40°C.
Other	Not applicable.

SECTION 10

STABILITY AND REACTIVITY

Reactivity

Chemical stability:	Material is chemically stable at room temperatures and pressure.
Hazardous polymerization:	Will not occur.
Conditions to avoid:	Avoid high temperatures and product contamination.
Incompatibility with other materials:	Avoid contact with acids and strong oxidizing materials.
Decomposition products:	Smoke, carbon monoxide, carbon dioxide, and other aldehydes of incomplete combustion. Oxides of carbon, nitrogen, and sulfur; reactive hydrocarbons and irritating vapors.
Other:	Not applicable.

SECTION 11

TOXICOLOGICAL INFORMATION

Acute toxicity (LD50) *See note at the bottom of the section

Oral:	>5000 mg/kg
Dermal:	>5000 mg/kg
Inhalation:	>20.0 mg/l
Skin irritation:	Non-irritant
Eye irritation:	Non-irritant
Dermal sensitization:	Not expected to have a sensitizing effect.
Respiratory sensitization:	Not expected to have a sensitizing effect.
Aspiration Hazard:	Not applicable

Chronic Toxicity

Mutagenicity:	Not suspected of causing genetic defects
Carcinogenicity:	Not suspected of causing cancer.
Reproductive toxicity:	Not expected to have adverse effects.
STOT-single exposure:	Not expected to have adverse effects.
STOT-repeated exposure:	Not expected to have long term adverse effects.
Other:	*All data in this section is based off calculations from Part 3 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) utilizing information from the constituent components.

**SECTION 12****ECOLOGICAL INFORMATION****Environmental toxicity**

Fish:	> 100 mg/l.
Invertebrates:	> 100 mg/l.
Aquatic plants:	> 100 mg/l.
Microorganism:	> 100 mg/l.

Persistence/Degradability: This product is not expected to be readily biodegradable.

Bioaccumulation: Not determined.

Mobility in soil: Not determined.

Other: All classifications are based on calculations in Part 4 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) utilizing information from the constituent components.

SECTION 13**DISPOSAL CONSIDERATIONS**

Waste disposal: This product unadulterated by other materials can be classified as a non-hazardous waste. Depending on use, used product may be regulated. Dispose of in a licensed facility. Do not discharge product in to sewer system. Dispose of containers by crushing or puncturing, so as to prevent unauthorized use of used containers. Waste management should be in full compliance with federal, state, and local laws.

Other: The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate.

SECTION 14**TRANSPORT INFORMATION**

Land Transport (DOT):	Not Regulated
Proper Shipping Name:	Not applicable.
Land Transport (TDG):	Not Regulated
Proper Shipping Name:	Not applicable.
Sea Transport (IMDG):	Not Regulated
Proper Shipping Name:	Not applicable.
Air Transport (IATA):	Not Regulated
Proper Shipping Name:	Not applicable.
Other:	Not Regulated

SECTION 15**REGULATORY INFORMATION****Federal Regulation**

Clean water act/oil: Under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Control Act of 1990, this material is considered an oil. Any spill or discharges that produce a visible sheen or film on surface of water, or in waterways, ditches, or sewers leading to surface water must be reported. Contact the National Response Center at 800-424-8802.

TSCA: All components of this material are listed in the U.S. TSCA Inventory.

Other TSCA: Not applicable.



SARA title III:

Section 302/304 extremely hazardous substances:
None.

Section 311, 312 hazard categorization:

Acute (immediate health effects):	NO
Chronic (delayed health effects):	NO
Fire (hazard):	NO
Reactivity (hazard):	NO
Pressure (sudden release hazard):	NO

Section 313 toxic chemicals:

No components present are at or greater than the de minimis (minimum reportable) concentration requirements for reporting.

CERCLA:

For stationary/moving sources – reportable quantity (due to): Not hazardous due to the petroleum exclusion.

State Regulations

Right-to-know

Not determined.

Other:

A release of this product, as supplied, is exempt from reporting under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). However, releases may be reportable to the Nation Response Center under the Clean Water Act, 33 U.S.C. 1321(b)(3) and (5) - see head of Section 15. Failure to report may result in substantial civil and criminal penalties.

Recommend contacting the local authorities in the event of any type of spill to determine local reporting requirements and also to aid in the cleanup.

SECTION 16 OTHER INFORMATION

	NFPA 704	NPCA-HMIS	KEY
HEALTH:	1	1	0 = Minimal
FIRE:	1	1	1 = Slight
REACTIVITY:	0	0	2 = Moderate
SPECIFIC HAZARD:	None	N/A	3 = Serious
PROTECTION INDEX:	N/A	B	4 = Severe

Version: I

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Revisions / Comments: None.



Northland Dexron VI ATF

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 02/25/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Substance
Trade name : Dexron VI ATF
Product code : 30A6

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Automatic Transmission Fluid

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : Spills of this product present a serious slipping hazard. This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	Product identifier	%	GHS-US classification
lubricating oils (petroleum), C15-30, hydrotreated neutral oilbased	(CAS No) 72623-86-0	50 - 70	Not Classified
white mineral oil (petroleum)	(CAS No) 8042-47-5	0.1 - 1.0	Asp. Tox. 1, H304

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. When using high-pressure equipment, injection of product can occur. If high-pressure injuries occur, immediately seek professional medical attention.

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- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: May cause irritation to the respiratory tract and to other mucous membranes. Coughing. Difficulty in breathing.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Injection of petroleum hydrocarbons requires immediate medical attention.
- Symptoms/injuries after eye contact : Oil Mist: May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

If material is injected under the skin, seek medical attention immediately. Immediate treatment at a surgical emergency center is recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product. Material will float and can be re-ignited on surface of water. Material will ignite when preheated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Use personal protective equipment as required. Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

Northland Dexron VI ATF

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Special danger of slipping by leaking/spilling product.
- Precautions for safe handling : Keep out of reach of children. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of reach of children. Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep container closed when not in use. Keep away from open flames, hot surfaces and sources of ignition.
- Incompatible materials : Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Keep away from heat and direct sunlight.
- Special rules on packaging : Correctly labelled.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

white mineral oil (petroleum) (8042-47-5)		
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.



- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Chemical goggles or safety glasses, with side-shields.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection.
- Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Clear red.
- Odour : Petroleum. Characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available

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Melting point	: No data available
Freezing point	: -54 °C (-65 °F)
Boiling point	: No data available
Flash point	: 206 °C (403 °F) Method: Cleveland Open Cup
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0,01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.864 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: No data available
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 6.0 cSt (100 °C / 212 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

white mineral oil (petroleum) (8042-47-5)	
LD50 oral rat	>5000 mg/kg
LD50 dermal rabbit	>2000 mg/kg
LC50 inhalation rat (mg/l)	>5 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified

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- Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: May cause irritation to the respiratory tract and to other mucous membranes. Coughing. Difficulty in breathing.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Injection of petroleum hydrocarbons requires immediate medical attention.
- Symptoms/injuries after eye contact : Oil Mist: May cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

- Ecology - general : An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

white mineral oil (petroleum) (8042-47-5)	
LC50 fish 1	> 100 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
Threshold limit algae 1	>= 100 mg/l (72 h; Pseudokirchneriella subcapitata; Growth rate)

12.2. Persistence and degradability

Northland Dexron VI ATF	
Persistence and degradability	Not established.

white mineral oil (petroleum) (8042-47-5)	
Persistence and degradability	Not readily biodegradable in water. No (test) data on mobility of the substance available.

12.3. Bioaccumulative potential

Northland Dexron VI ATF	
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

white mineral oil (petroleum) (8042-47-5)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

- Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste disposal recommendations : Dispose of contents/container to comply with applicable local, national and international regulations. Disposal must be done according to official regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. Do not re-use empty containers. Since emptied containers retain product residue, follow label warnings even after container is emptied.
- Additional information : Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Empty container retains product residue.
- Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

- Other information : No supplementary information available.

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1 US Federal regulations

No additional information available

15.2 International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3 US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

H304	May be fatal if swallowed and enters airways
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SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks.

POWER SERVICE PRODUCTS, INC.
SAFETY DATA SHEET



SECTION 1 - IDENTIFICATION

PRODUCT NAME: DIESEL 9•1•1

Unless otherwise noted, all sections of this SDS apply to each of the following products and part numbers.

PART NUMBERS:

8016-09, 8025-08, 8025-12, 8064-06, 8080-06, 8050-02, 8055-01, 8260-01

COMPANY IDENTIFICATION:

Power Service Products, Inc.
P.O. Box 1089
Weatherford, TX 76086
Email: psp@powerservice.com
Phone: 800/643-9089 or 817-599-9486
Fax: 817-599-4893

Emergency Phone Number: Within USA 1-800-424-9300. Outside USA 001-703-527-3887
(Call Collect).

RECOMMENDED USES: Diesel fuel additive

SECTION 2 - HAZARD(S) IDENTIFICATION

CLASSIFICATION UNDER 29 CFR 1910.1200(d)

(NC=product does not meet classification criteria)

Part Numbers:	8055-01, 8260-01	8016-09, 8025-08, 8025- 12, 8064-06, 8080-06, 8050-02
Health Hazard Criteria	Category	Category
Acute Toxicity, Oral:	NC	NC
Acute Toxicity, Dermal:	NC	NC
Acute Toxicity, Inhalation, Vapors:	4	4
Skin Corrosion/Irritation:	2	NC
Serious Eye Damage/Eye Irritation:	2	1



Part Numbers:	8055-01, 8260-01	8016-09, 8025-08, 8025-12, 8064-06, 8080-06, 8050-02
Health Hazard Criteria	Category	Category
Respiratory Sensitization:	NC	NC
Skin Sensitization:	NC	NC
Germ Cell Mutagenicity:	NC	NC
Carcinogenicity:	NC	NC
Reproductive Toxicity:	NC	NC
Specific Target Organ Toxicity, Single Exposure:	3	3
Specific Target Organ Toxicity, Repeated or Prolonged Exposure:	NC	NC
Aspiration Hazard:	1	1

Part Numbers:	8055-01, 8260-01	8016-09, 8025-08, 8025-12, 8064-06, 8080-06, 8050-02
Physical Properties Criteria	Category	Category
Explosives:	NC	NC
Flammable Gases:	NC	NC
Flammable Aerosols:	NC	NC
Oxidizing Gases:	NC	NC
Gases Under Pressure:	NC	NC
Flammable Liquids:	2	3
Flammable Solids:	NC	NC
Self-Reactive Chemicals:	NC	NC
Pyrophoric Liquids:	NC	NC
Pyrophoric Solids:	NC	NC
Self-Heating Chemicals:	NC	NC
Chemicals Which, in Contact with Water, Emit Flammable Gases:	NC	NC
Oxidizing Liquids:	NC	NC
Oxidizing Solids:	NC	NC
Organic Peroxides:	NC	NC
Corrosive to Metals:	NC	NC

LABEL SIGNAL WORD, HAZARD STATEMENTS, SYMBOLS AND PRECAUTIONARY STATEMENTS UNDER 29 CFR 1910.1200(f):

Please see the Note regarding product labeling in Section 16.

Signal Word(s): **Danger**

Part Number	Hazard and Precautionary Statement(s)	Symbols
8055-01 8260-01	<p>Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Harmful if inhaled. Causes skin and serious eye irritation and may cause respiratory irritation and drowsiness or dizziness. Keep away from sparks and open flames. No smoking. Keep container tightly closed. Use only non-sparking tools. Ground/Bond container and receiving equipment. Use explosion-proof pumps when pumping. Take precautionary measures against static discharge. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves and eye protection. Store locked up and in cool, well ventilated place. KEEP OUT OF REACH OF CHILDREN.</p>	
8016-09 8025-08 8025-12 8064-06 8080-06 8050-02	<p>Flammable liquid and vapor. Causes serious eye damage. May be fatal if swallowed and enters airways. Harmful if inhaled. Causes skin irritation and may cause respiratory irritation and drowsiness or dizziness.</p> <p>Keep away from sparks and open flames. No smoking. Keep container tightly closed. Use only non-sparking tools. Ground/Bond container and receiving equipment. Use explosion-proof pumps when pumping. Take precautionary measures against static discharge. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves and eye protection. Store locked up and in cool, well ventilated place. KEEP OUT OF REACH OF CHILDREN.</p>	

Hazards Not Otherwise Classified: None

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

The specific chemical identity and exact concentration percentage has been withheld as a Trade Secret. Specific chemical information will be made available to health professionals in accordance with 29 CFR 1910.1200.

INGREDIENTS CLASSIFIED AS HEALTH HAZARDS

Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Aliphatic hydroxy hydrocarbons	Trade secret	Trade secret	40 - 90
Petroleum Distillates	Trade secret	Trade secret	10 - 60

SECTION 4 - FIRST AID MEASURES

As a precaution, exposure to liquids, vapors, mists and fumes should be minimized.

8055-01 8260-01	<p>EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.</p> <p>SKIN CONTACT: Immediately take off contaminated clothing and wash it before reuse. Wash contaminated areas with plenty of water. If skin irritation occurs get medical advice/attention.</p> <p>INHALATION: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.</p> <p>INGESTION: If swallowed, IMMEDIATELY call a doctor. Do NOT induce vomiting.</p>
8016-09 8025-08 8025-12 8064-06 8080-06 8050-02	<p>EYE CONTACT: Immediately call a doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>SKIN CONTACT: Wash contaminated areas with plenty of water. If skin irritation occurs get medical advice/attention.</p> <p>INHALATION: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.</p> <p>INGESTION: If swallowed, IMMEDIATELY call a doctor. Do NOT induce vomiting.</p>

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA: Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

SPECIFIC HAZARDS: Vapors are heavier than air and may travel along the ground to a distant ignition source and flash back. See Section 10 for Stability and Reactivity. **NOTE: EMPTY CONTAINERS CONTAIN COMBUSTIBLE VAPORS THAT CAN CAUSE FLASH FIRES OR EXPLOSIONS. CONTAINERS ARE SINGLE-TRIP CONTAINERS AND SHOULD NOT BE USED FOR ANY REASON AFTER BEING EMPTIED. DO NOT USE CUTTING TORCH EQUIPMENT OR ANY OTHER FLAME OR OTHER SOURCES OF IGNITION ON ANY EMPTY CONTAINER.**

PROTECTIVE EQUIPMENT AND PRECAUTIONS: Use standard protective equipment including self-contained breathing apparatus (SCBA).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas. Eliminate all sources of ignition in the vicinity of the spill or released vapor. See Section 2 for Hazards Identification. See Section 4 for First Aid Measures. See Section 5 for Fire Fighting Information. See Section 8 for Personal Protective Equipment.

SPILL CONTAINMENT AND CLEAN-UP: Eliminate potential sources of ignition. Stop leak if it can be done without risk. Dike and contain spill. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. A vapor suppressing foam may be used to reduce vapors. Local, state and federal laws and/or regulations may apply to releases and disposal of this material, as well as those materials and items employed in the clean-up releases. The user/responder will need to determine which local, state and federal laws and/or regulations are applicable. The National Response Center can be reached at 1-800-424-8802.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with eyes and skin. Use only with adequate ventilation. Use proper bonding and/or grounding procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Keep away from ignition sources such as heat, sparks, and flames. No smoking.

CONDITIONS FOR SAFE STORAGE: DO NOT USE OR STORE near heat, sparks, or flame. USE AND STORE ONLY IN A WELL-VENTILATED AREA. Handle containers with care. Keep container closed when not in use. Store locked up.

STORAGE TEMPERATURE: -40°F to 100°F (-40°C to 38°C)

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN FLAMMABLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

	CAS #	OSHA	ACGIH		NIOSH			Note
		PEL	TLV	STEL	REL	STEL	IDLH	
Ethylbenzene	100-41-4	100 ppm	20 ppm	not est.	100 ppm	125 ppm	800 ppm (LEL)	n/a
Cumene	98-82-8	50 ppm	50 ppm	not est.	50 ppm	not est.	900 ppm (LEL)	Skin
Petroleum Distillates	n/a	500 ppm	not est.	not est.	not est.	not est.	not est.	n/a

ENGINEERING CONTROLS: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Local exhaust ventilation is recommended to control exposure.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Eyes and Face: Eye protection such as safety glasses or chemical goggles is recommended if contact is likely.

Skin: If prolonged or repeated skin contact is likely, chemical/oil resistant clothing and gloves are recommended. Wear additional protective clothing as appropriate.

Respiratory: Wear a NIOSH/MSHA approved respirator as necessary.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Practice good housekeeping.

NOTE: These precautions are for room temperature handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Part Numbers:	8016-09, 8025-08, 8025-12, 8050-02, 8055-01, 8260-01	8064-06	8080-06
Appearance	Liquid, straw yellow	Liquid, straw yellow	Liquid, straw yellow
Odor	Strong solvent	Strong solvent	Strong solvent
Odor Threshold	Not available	Not available	Not available
pH	Not applicable	Not applicable	Not applicable
Melting point/Freezing point	Not available	Not available	Not available
Initial Boiling Point and Boiling Range	127.9 °F (53.3°C)	126.1°F (52.3°C)	205.2°F (96.2°C)
Flash Point	66.0°F (TCC) 18.9°C	75.0°F (TCC) 23.9°C	74.0°F (TCC) 23.3°C
Evaporation Rate	Not available	Not available	Not available
Flammability	Not available	Not available	Not available
Upper / lower Flammability or Explosive Limits	Not available	Not available	Not available
Vapor Pressure	Not available	Not available	Not available
Vapor Density	Not available	Not available	Not available
Relative Density/Specific Gravity (at 20°C)	0.84	0.85	0.85
Solubility	Not available	Not available	Not available
Partition Coefficient; n-octanol / water	Not available	Not available	Not available
Auto-ignition Temperature	Not available	Not available	Not available
Decomposition temperature	Not available	Not available	Not available
Viscosity	1.588 cSt	Not available	Not available
Pour Point	<-98°F (-72.2°C)	<-98°F (-72.2°C)	<-98°F (-72.2°C)

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: see Incompatible Materials below

CHEMICAL STABILITY: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

CONDITIONS TO AVOID: Flames, high energy ignition sources, and elevated temperatures.

INCOMPATIBLE MATERIALS: May react with oxygen, oxidizing agents, such as; chlorates, nitrates, peroxides, etc., amines, caustics, alkanolamines halogens, chlorine.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides, products of incomplete combustion.

HAZARDOUS POLYMERIZATION:
Hazardous polymerization will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE

INGESTION	INHALATION	SKIN CONTACT	EYE CONTACT	SKIN ABSORPTION
	X	X	X	X

SYMPTOMS RELATED TO PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS: Breathing of high vapor concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. The vapor or fumes from this material may cause respiratory irritation. Breathing this material at elevated concentrations causes central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors, or convulsions, loss of consciousness, coma or death.

DELAYED AND IMMEDIATE EFFECTS AND CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE: Repeated skin exposure to a component of this product may cause irritation, even a burn; may cause a more severe response on covered skin, such as under clothing or gloves. Inhalation exposure to a component of this product has caused fetotoxicity in the presence of maternal toxicity in animals.

NUMERICAL MEASURES OF TOXICITY

Note: the information provided below are estimates; testing of the product is not available.

Acute Oral Toxicity (ATE _{mix} estimate)	Acute Dermal Toxicity (ATE _{mix} estimate)	Acute Inhalation (ATE _{mix} estimate)
Does not meet criteria	Does not meet criteria	15.0-19.0

SENSITIZATION: No information available.

MUTAGENICITY: No information available.

CARCINOGENICITY LISTINGS – the following chemicals are listed as indicated:

Chemical	List
Cumene	IARC, NTP
Ethylbenzene	IARC

REPRODUCTIVE TOXICITY: No information available.

TERATOGENICITY/EMBRYOTOXICITY: This product contains a component of a complex mixture (Xylenes (1330-20-7)) that has been shown to cause teratogenicity and/or embryotoxicity.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Respiratory tract irritation.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): No information available

ASPIRATION HAZARD: Aspiration hazard identified.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY:

This material is expected to be toxic to aquatic organisms.

PERSISTENCE AND DEGRADABILITY: No information available.

BIOACCUMULATIVE POTENTIAL: No information available.

MOBILITY IN SOIL: No information available.

OTHER ADVERSE EFFECTS: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Information: Disposal of unused product may be subject to RCRA hazardous waste regulations (40 CFR Part 261). Disposal of the used product may also be regulated as hazardous waste due to resulting mixture characteristics, mixture components or product use. Such changes to the product may result in different and/or additional hazardous waste codes. Potential RCRA waste code based on the product as shipped: D001 IGNITABILITY.

State or local laws may impose additional regulatory requirements regarding disposal. *Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.*

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN FLAMMABLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA.

SECTION 14 - TRANSPORTATION INFORMATION

The following part numbers are regulated for transportation as follows:

8016-09 8025-08 8025-12	DOT (Domestic Ground): Consumer Commodity
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Aliphatic Hydroxy Hydrocarbons & Petroleum Distillates) 3, II (18.9°C cc) LTD QTY
8064-06	DOT (Domestic Ground): Consumer Commodity
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Aliphatic Hydroxy Hydrocarbons & Petroleum Distillates) 3, III (23.9°C cc) LTD QTY
8080-06	DOT (Domestic Ground): Consumer Commodity
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Aliphatic Hydroxy Hydrocarbons & Petroleum Distillates) 3, III (23.3°C cc) LTD QTY
8050-02 8055-01 8260-01	DOT (Domestic Ground): UN 1993 Flammable liquids, n.o.s. (Aliphatic Hydroxy Hydrocarbons & Petroleum Distillates) 3, II
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Aliphatic Hydroxy Hydrocarbons & Petroleum Distillates) 3, II (18.9°C cc)

All Part Numbers Forbidden for Transport by Air.

SECTION 15 - REGULATORY INFORMATION

§14(a) Consumer Product Safety Act General Certificate of Conformity

Power Service Products, Inc. certifies that this product meets the statutory and regulatory requirements of the US Consumer Products Safety Act, the Federal Hazardous Substances Act, and the Poison Prevention Packaging Act of 1970, as applicable. The Power Service products are manufactured in the United States in Weatherford, Texas, unless otherwise indicated on the product label. The product manufacture lot code is stamped on the product container. This Certification is based upon a reasonable testing program conducted by Power Service Products, Inc. which includes a quality control program incorporating, as necessary, confirmation of compliance by component suppliers. Third-party testing is not required to certify compliance.

Further details may be obtained by contacting the Power Service Products, Inc. EHS Manager at 1-800-643-9089.

Contents of this SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200

TSCA STATUS:

All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.

EPA SARA TITLE III CHEMICAL LISTINGS:

Section 302 Extremely Hazardous Substances: None

Sections 311/ 312 Hazard Class:

Acute Health Effects: Yes Sudden Release of Pressure Hazard: No
Chronic Health Effects: Yes Reactivity Hazard: No
Fire Hazard: Yes

NFPA (NATIONAL FIRE PROTECTION ASSOCIATION) RATING:

HEALTH: 2
FIRE: 3
REACTIVITY: 0

Section 313:

Specific chemical information is being withheld as a Trade Secret. The following chemicals subject to the reporting requirements of EPCRA Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (40 CFR Part 372) may be present in this product at a concentration that does not exceed the specified upper weight percentage.

CAS Number	Chemical Name	Max %
100-41-4	Ethylbenzene	10.0

State or local laws may impose additional regulatory requirements for components of this material. It is the responsibility solely of the Employer to maintain compliance with State and Local reporting.

CA Proposition 65

 **WARNING:** Cancer and Reproductive Harm – www.P65Warnings.ca.gov.

SECTION 16 – OTHER INFORMATION

DATE OF PREPARATION / REVISION: September 8, 2021

NOTE regarding product labeling: The OSHA Hazard Communication Standard applies to hazardous chemicals known to be present in the workplace. However, the labeling and

Safety Data Sheet requirements do not apply to consumer products when they are used in the workplace for the purposes intended by the manufacturer and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the intended purpose. Power Service Products intends for product packaged in 1 gallon or smaller containers to be used by consumers and has labeled those containers as required under the Consumer Product Safety Commission regulations. Power Service Products intends for product packaged in containers larger than 1 gallon to be used in the workplace and has labeled those products as required by the OSHA Hazard Communication Standard. The Consumer Product Safety Commission and OSHA Hazard Communication Standard labeling requirements are different and variations between the consumer and industrial labels may occur. It is the employer's responsibility to purchase the appropriate product for use in the workplace.

The information contained herein is offered in good faith and is believed to be accurate based on the data available to us as of the date of SDS preparation. The information in this document applies to this specific product as supplied. It may not be appropriate for this product if the product is used in combination with other materials. The information in this document is not intended to constitute product performance information. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product. No statement shall be construed as an endorsement of any product or process. The recommended industrial hygiene and safe handling procedures are believed to be valid in the context of the intended use as described in product labeling. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. You are urged to obtain material safety data sheets for all products you buy, process, use or distribute, and are encouraged to advise those who may come in contact with such products of the information contained therein. Regulatory requirements are subject to change and may differ between locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. No warranty or guarantee is expressed or implied with respect to this product, the accuracy and sufficiency of the data or recommendations herein, or the results to be obtained from the use of this product. IN NO EVENT SHALL POWER SERVICE PRODUCTS, INC. BE LIABLE FOR ANY LOSS, CLAIM, DAMAGE OR LIABILITY OF ANY KIND, WHICH MAY ARISE FROM OR IN CONNECTION WITH THE INFORMATION CONTAINED IN THIS DOCUMENT OR FROM THE USE, HANDLING OR STORAGE OF THE PRODUCT BY THE BUYER/USER, WHETHER DIRECT, INDIRECT, OR CONSEQUENTIAL, OR FOR ANY CLAIM BY ANY THIRD PARTY, BEYOND THE PURCHASE PRICE OR REPLACEMENT OF THE PRODUCT IN CONNECTION WITH WHICH SUCH LOSS, CLAIM, DAMAGE OR LIABILITY AROSE.

THE FOREGOING LIMITATIONS APPLY REGARDLESS OF THE CAUSES OR CIRCUMSTANCES GIVING RISE TO SUCH LOSS, CLAIM, DAMAGE OR LIABILITY, EVEN IF SUCH LOSS, CLAIM, DAMAGE, OR LIABILITY IS BASED ON NEGLIGENCE OR OTHER TORTS OR BREACH OF CONTRACT.

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SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: NO. 1 DIESEL FUEL
Product Description: Hydrocarbons and Additives
Product Code: 708118-00, 978585, 979118, 979485, 97AC22, 97AJ11, 97AJ19, 97AJ21, 97AJ22, 97AJ23, 97AJ34, 97AJ35, 97BQ86, 97BR49, 97BR50, 97BR51, 97BR52, 97BR53, 97BR54, 97U646, EMGF24
Intended Use: Fuel

COMPANY IDENTIFICATION

Supplier: EXXON MOBIL CORPORATION
22777 Springwoods Village Parkway
Spring, TX. 77253 USA

24 Hour Health Emergency 609-737-4411
Transportation Emergency Phone 800-424-9300 or 703-527-3887 CHEMTREC
Product Technical Information 800-662-4525
MSDS Internet Address <http://www.exxon.com>, <http://www.mobil.com>

SECTION 2 HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

CLASSIFICATION:

Flammable liquid: Category 3.
Skin irritation: Category 2. Specific target organ toxicant (central nervous system): Category 3. Aspiration toxicant: Category 1.

LABEL:

Pictogram:



Signal Word: Danger

Hazard Statements:

H226: Flammable liquid and vapor. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.

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Precautionary Statements:

P210: Keep away from heat/sparks/open flames/hot surfaces. -- No smoking. P233: Keep container tightly closed. P240: Ground / bond container and receiving equipment. P241: Use explosion-proof electrical, ventilating, and lighting equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing mist / vapours. P264: Wash skin thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves and eye / face protection. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P331: Do NOT induce vomiting. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P370 + P378: In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish. P391: Collect spillage. P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up. P501: Dispose of contents and container in accordance with local regulations.

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

Material can accumulate static charges which may cause an ignition. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited.

HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. May be irritating to the eyes, nose, throat, and lungs. Breathing of high vapor concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.

ENVIRONMENTAL HAZARDS

Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID: Health: 2 Flammability: 2 Reactivity: 0
HMIS Hazard ID: Health: 2 Flammability: 2 Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3	COMPOSITION / INFORMATION ON INGREDIENTS
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This material is defined as a complex substance.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
KEROSENE	8008-20-6	> 95 %	H226, H304, H336, H315, H401, H411

Hazardous Constituent(s) Contained in Complex Substance(s) required for disclosure

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Name	CAS#	Concentration*	GHS Hazard Codes
ETHYL BENZENE	100-41-4	0.1 - 1%	H225, H332, H373, H401, H412
NAPHTHALENE	91-20-3	< 1%	H302, H351, H400(M factor 1), H410(M factor 1)

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

NOTE: Composition may contain up to 0.5% performance additives and / or dyes.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE

Contains hydrocarbon solvent/petroleum hydrocarbons; skin contact may aggravate an existing dermatitis.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

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Unusual Fire Hazards: Flammable. Hazardous material. Firefighters should consider protective equipment indicated in Section 8. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.

Hazardous Combustion Products: Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: >38°C (100°F) [ASTM D-93]

Flammable Limits (Approximate volume % in air): LEL: 0.7 UEL: 5.0

Autoignition Temperature: 250°C (482°F) [ASTM E659]

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H₂S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Water Spill: Stop leak if you can do it without risk. Eliminate sources of ignition. Warn other shipping. If the Flash Point exceeds the Ambient Temperature by 10 degrees C or more, use containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. If the Flash Point does not exceed the Ambient Air Temperature by at least 10C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however,

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geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7	HANDLING AND STORAGE
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HANDLING

Avoid all personal contact. Do not siphon by mouth. It is dangerous and/or unlawful to put fuel into unapproved containers. Do not fill container while it is in or on a vehicle. Static electricity may ignite vapors and cause fire. Place container on ground when filling and keep nozzle in contact with container. Do not use electronic devices (including but not limited to cellular phones, computers, calculators, pagers or other electronic devices, etc.) in or around any fueling operation or storage area unless the devices are certified intrinsically safe by an approved national testing agency and to the safety standards required by national and/or local laws and regulations. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION
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EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard			NOTE	Source
ETHYL BENZENE		TWA	435 mg/m3	100 ppm	N/A	OSHA Z1
ETHYL BENZENE		TWA	20 ppm		N/A	ACGIH
KEROSENE	Stable Aerosol.	TWA	5 mg/m3		N/A	ExxonMobil
KEROSENE	Vapor.	TWA	200 mg/m3		N/A	ExxonMobil
KEROSENE [as total hydrocarbon vapor]	Non-Aerosol	TWA	200 mg/m3		Skin	ACGIH
NAPHTHALENE		TWA	50 mg/m3	10 ppm	N/A	OSHA Z1

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NAPHTHALENE		TWA	10 ppm		Skin	ACGIH
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NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

Biological limits

Substance	Specimen	Sampling Time	Limit	Determinant	Source
ETHYL BENZENE	Creatinine in urine	End of shift	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	ACGIH BELs (BEIs)
NAPHTHALENE	No Biological Specimen provided	End of shift	Not Assigned	1-Naphthol, with hydrolysis + 2-Naphthol, with hydrolysis	ACGIH BELs (BEIs)

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Use explosion-proof ventilation equipment to stay below exposure limits.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

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ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Color: Clear (May Be Dyed)
Odor: Petroleum/Solvent
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.775 - 0.83
Density (at 15 °C): 750 kg/m³ (6.26 lbs/gal, 0.75 kg/dm³) - 860 kg/m³ (7.18 lbs/gal, 0.86 kg/dm³) [ASTM D4052]
Flammability (Solid, Gas): N/A
Flash Point [Method]: >38°C (100°F) [ASTM D-93]
Flammable Limits (Approximate volume % in air): LEL: 0.7 UEL: 5.0
Autoignition Temperature: 250°C (482°F) [ASTM E659]
Boiling Point / Range: > 200°C (392°F) [EN ISO 3405]
Decomposition Temperature: N/D
Vapor Density (Air = 1): N/D
Vapor Pressure: < 0.133 kPa (1 mm Hg) at 20 °C [EN 13016-1]
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
Solubility in Water: Negligible
Viscosity: 1.1 cSt (1.1 mm²/sec) at 40 °C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/D

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources.

MATERIALS TO AVOID: Halogens, Strong Acids, Alkalies, Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

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POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11	TOXICOLOGICAL INFORMATION
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INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: (Rat) 4 hour(s) LC50 > 5000 mg/m3 (Vapor)	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403
Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Acute Toxicity (Rat): LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 420
Skin	
Acute Toxicity (Rabbit): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402
Skin Corrosion/Irritation (Rabbit): Data available.	Irritating to the skin. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404
Eye	
Serious Eye Damage/Irritation (Rabbit): Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: Data available.	Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406
Aspiration: Data available.	May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: Data available.	Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 475 476 478 479
Carcinogenicity: Data available.	Not expected to cause cancer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 451
Reproductive Toxicity: Data available.	Not expected to be a reproductive toxicant. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 414 421
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	May cause drowsiness or dizziness.
Repeated Exposure: Data available.	Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 410 412

TOXICITY FOR SUBSTANCES

NAME	ACUTE TOXICITY
ETHYL BENZENE	Inhalation Lethality: 4 hour(s) LC50 17.8 mg/l (Vapor) (Rat); Oral Lethality: LD50 3.5 g/kg (Rat)
NAPHTHALENE	Inhalation Lethality: 4 hour(s) LC50 > 0.4 mg/l (Max attainable vapor conc.) (Rat); Oral Lethality: LD50 533 mg/kg (Mouse)

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OTHER INFORMATION

For the product itself:

Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Contains:

Kerosene: Carcinogenic in animal tests. Lifetime skin painting tests produced tumors, but the mechanism is due to repeated cycles of skin damage and restorative hyperplasia. This mechanism is considered unlikely in humans where such prolonged skin irritation would not be tolerated. Did not cause mutations In vitro. Inhalation of vapors did not result in reproductive or developmental effects in laboratory animals. Inhalation of high concentrations in animals resulted in respiratory tract irritation, lung changes and some reduction in lung function. Non-sensitizing in animal tests.

NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.

ETHYLBENZENE: Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
ETHYL BENZENE	100-41-4	5
NAPHTHALENE	91-20-3	2, 5

--REGULATORY LISTS SEARCHED--

1 = NTP CARC
 2 = NTP SUS

3 = IARC 1
 4 = IARC 2A

5 = IARC 2B
 6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

Majority of components -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

Majority of components -- Low potential to migrate through soil.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be inherently biodegradable

Atmospheric Oxidation:

Majority of components -- Expected to degrade rapidly in air

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BIOACCUMULATION POTENTIAL

Majority of components -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

ECOLOGICAL DATA

Ecotoxicity

Test	Duration	Organism Type	Test Results
Aquatic - Acute Toxicity	96 hour(s)	Oncorhynchus mykiss	LL50 1 - 100 mg/l: data for similar materials
Aquatic - Acute Toxicity	48 hour(s)	Daphnia magna	EL50 1 - 100 mg/l: data for similar materials
Aquatic - Acute Toxicity	72 hour(s)	Pseudokirchneriella subcapitata	EL50 1 - 100 mg/l: data for similar materials
Aquatic - Chronic Toxicity	21 day(s)	Daphnia magna	NOELR 0.48 mg/l: data for similar materials
Aquatic - Chronic Toxicity	72 hour(s)	Pseudokirchneriella subcapitata	NOELR 1 - 10 mg/l: data for similar materials

Persistence, Degradability and Bioaccumulation Potential

Media	Test Type	Duration	Test Results
Water	Ready Biodegradability	28 day(s)	Percent Degraded < 60 : similar material

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: IGNITABILITY.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

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LAND (DOT)

Proper Shipping Name: KEROSENE
Hazard Class & Division: COMBUSTIBLE LIQUID
ID Number: 1223
Packing Group: III
Marine Pollutant: No
ERG Number: 128
Label(s): NONE
Transport Document Name: UN1223, KEROSENE, COMBUSTIBLE LIQUID, PG III

Footnote: The flash point of this material is greater than 100 F. Regulatory classification of this material varies. DOT: Flammable liquid or combustible liquid. OSHA: Combustible liquid. IATA/IMO: Flammable liquid.

LAND (TDG)

Proper Shipping Name: KEROSENE
Hazard Class & Division: 3
UN Number: 1223
Packing Group: III

SEA (IMDG)

Proper Shipping Name: KEROSENE
Hazard Class & Division: 3
EMS Number: F-E, S-E
UN Number: 1223
Packing Group: III
Marine Pollutant: Yes
Label(s): 3
Transport Document Name: UN1223, KEROSENE, 3, PG III, (38°C c.c.), MARINE POLLUTANT

AIR (IATA)

Proper Shipping Name: KEROSENE
Hazard Class & Division: 3
UN Number: 1223
Packing Group: III
Label(s) / Mark(s): 3
Transport Document Name: UN1223, KEROSENE, 3, PG III

SECTION 15	REGULATORY INFORMATION
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OSHA HAZARD COMMUNICATION STANDARD: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: AICS, DSL, ENCS, KECI, PICCS, TSCA

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive

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Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire. Immediate Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value
ETHYL BENZENE	100-41-4	0.1 - 1%
NAPHTHALENE	91-20-3	< 1%

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
ETHYL BENZENE	100-41-4	1, 4, 10, 17
KEROSENE	8008-20-6	1, 18, 19
NAPHTHALENE	91-20-3	1, 4, 9, 10, 17

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16	OTHER INFORMATION
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This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer. Chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm are created by the combustion of this product.

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

- H225: Highly flammable liquid and vapor; Flammable Liquid, Cat 2
- H226: Flammable liquid and vapor; Flammable Liquid, Cat 3
- H302: Harmful if swallowed; Acute Tox Oral, Cat 4
- H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1
- H315: Causes skin irritation; Skin Corr/Irritation, Cat 2
- H332: Harmful if inhaled; Acute Tox Inh, Cat 4
- H336: May cause drowsiness or dizziness; Target Organ Single, Narcotic
- H351: Suspected of causing cancer; GHS Carcinogenicity, Cat 2
- H400: Very toxic to aquatic life; Acute Env Tox, Cat 1
- H401: Toxic to aquatic life; Acute Env Tox, Cat 2

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H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1

H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 05: Hazardous Combustion Products information was modified.

Section 11: Tox List Cited Table information was modified.

Section 15: Community RTK - Header information was modified.

Composition: Component Table information was modified.

GHS Precautionary Statements - Response information was modified.

Section 08: Biological Exposure Limits (ACG BEL) - Limit Header information was added.

Section 16: Revision Information - Implementation of GHS requirements phrase. information was deleted.

Section 08: Biological Exposure Limits (South Africa) - Limit Header information was deleted.

Section 02: GHS Contains for LABEL_GHS codes information was deleted.

Section 02: GHS Contains - Header information was deleted.

THIS MSDS COVERS THE FOLLOWING MATERIALS: DIESEL NO. 1 | ESSO DIESEL FUEL NO. 1 | EXXON DIESEL FUEL NO. 1 | KEROSENE (FUEL) | LOW SULFUR DIESEL NO. 1 | MOBIL DIESEL FUEL NO. 1 | ULTRA LOW SULFUR DIESEL NO. 1 | WINTERIZED DIESEL FUEL NO. 1

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PPEC: C

DGN: 2000440XUS (1016820)

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PENRAY FUEL PREP™ DIESEL FUEL CONDITIONER

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 04/04/2014

Revision date: 04/04/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : PENRAY FUEL PREP™ DIESEL FUEL CONDITIONER

Product code : 100032

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Fuel Prep

1.3. Details of the supplier of the safety data sheet

The Penray Companies, Inc.

440 Denniston Ct.

60090 Wheeling, IL

T (800) 373-6729

rotto@penray.com

1.4. Emergency telephone number

Emergency number : (800) 373-6729
CHEMTREC (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable Liquid 3

Acute toxicity 4 (Inhalation)

Skin irritation 2

Carcinogenicity 1B

Specific target organ toxicity - Single exposure 3

Aspiration hazard 1

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: Flammable liquid and vapor. Harmful if inhaled. Causes skin irritation. May cause cancer. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.

Precautionary statements (GHS-US)

: Keep away from heat/sparks/open flames/hot surfaces.– No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. If exposed or concerned: Get medical advice/attention. If on skin (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Kerosene, petroleum	(CAS No) 8008-20-6	60 - 100	Flam. Liq. 3 Skin Irrit. 2 STOT SE 3 Asp. Tox. 1
Solvent naphtha, petroleum, heavy aromatic	(CAS No) 64742-94-5	3 - 7	Flam. Liq. 3 Asp. Tox. 1
Solvent naphtha, petroleum, light aromatic	(CAS No) 64742-95-6	1 - 5	Asp. Tox. 1
Pseudocumene	(CAS No) 95-63-6	0.5 - 1.5	Flam. Liq. 3 Acute Tox. 4 (Inhalation) Skin Irrit. 2 Eye Irrit. 2A STOT SE 3
Naphthalene	(CAS No) 91-20-3	0.5 - 1.5	Acute Tox. 4 (Oral, Dermal) Carc. 2
Xylenes (o-, m-, p- isomers)	(CAS No) 1330-20-7	0.1 - 1	Flam. Liq. 3 Acute Tox. 4 (Dermal, Inhalation) Skin Irrit. 2
Cumene	(CAS No) 98-82-8	< 0.1	Flam. Liq. 3 Acute Tox. 4 (Oral) Carc. 2

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Harmful if inhaled. May cause drowsiness, dizziness and central nervous system depression. May cause respiratory tract irritation.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Treat for surrounding material.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Use water spray to keep fire-exposed containers cool.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

6.2. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE)

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Avoid breathing gas/mist/vapors/spray. Do not swallow. Handle and open container with care. Use only non-sparking tools. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.

Hygiene measures

: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store locked up. Keep cool. Keep away from heat, sparks, and flame.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Kerosene, petroleum (8008-20-6)		
USA ACGIH	ACGIH TWA (mg/m ³)	200 mg/m ³

Pseudocumene (95-63-6)		
USA ACGIH	ACGIH TWA (ppm)	25 ppm

Naphthalene (91-20-3)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm
USA ACGIH	ACGIH STEL (ppm)	15 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	50 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm

Xylenes (o-, m-, p- isomers) (1330-20-7)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	ACGIH STEL (ppm)	150 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm

Cumene (98-82-8)		
USA ACGIH	ACGIH TWA (ppm)	50 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	245 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm

8.2. Exposure controls

Appropriate engineering controls

: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Personal protective equipment

: Avoid all unnecessary exposure.

Hand protection

: Wear chemically resistant protective gloves.

Eye protection

: Safety glasses or goggles are recommended when using product.

Skin and body protection

: Wear suitable protective clothing.

Respiratory protection

: A NIOSH approved respirator is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls

: Maintain levels below Community environmental protection thresholds.

Other information

: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

: Liquid

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Colour	: Amber.
Odour	: Petroleum odor.
Odour threshold	: No data available.
pH	: No data available.
Relative evaporation rate (butylacetate=1)	: No data available.
Melting point	: No data available.
Freezing point	: No data available.
Boiling point	: No data available.
Flash point	: ~ 49 °C (~ 120 °F)
Self ignition temperature	: No data available.
Decomposition temperature	: No data available.
Flammability (solid, gas)	: Flammable.
Vapour pressure	: No data available.
Relative vapour density at 20 °C	: No data available.
Relative density	: 0.815 - 0.835
Solubility	: No data available.
Log Pow	: No data available.
Log Kow	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: No data available.
Explosive properties	: No data available.
Oxidising properties	: No data available.
Explosive limits	: No data available.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials. Open flame.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

100032	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 20 mg/l/4h
Kerosene, petroleum (8008-20-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.28 mg/l/4h
Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	>2000mg/kg
Solvent naphtha, petroleum, light aromatic (64742-95-6)	
LD50 oral rat	8400 mg/kg

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Solvent naphtha, petroleum, light aromatic (64742-95-6)	
LC50 inhalation rat (ppm)	3400 ppm/4h
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h

Pseudocumene (95-63-6)	
LD50 oral rat	3400 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 inhalation rat (mg/l)	18 g/m ³ /4h

Naphthalene (91-20-3)	
LD50 oral rat	490 mg/kg
LD50 dermal rabbit	> 20 g/kg

Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 oral rat	4300 mg/kg
LD50 dermal rabbit	> 1700 mg/kg
LC50 inhalation rat (mg/l)	47635 mg/l/4h

Cumene (98-82-8)	
LD50 oral rat	1400 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 inhalation rat (mg/l)	39000 mg/m ³ /4 h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: May cause cancer.

Naphthalene (91-20-3)	
IARC group	2B
National Toxicity Program (NTP) Status	1, 3

Xylenes (o-, m-, p- isomers) (1330-20-7)	
IARC group	3

Cumene (98-82-8)	
IARC group	2B
National Toxicity Program (NTP) Status	1

Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: Harmful if inhaled. May cause drowsiness, dizziness and central nervous system depression. May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity	
Ecology - general	: May cause long-term adverse effects in the aquatic environment.
12.2. Persistence and degradability	

100032	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

100032	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

12.5. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

Additional information : Handle empty containers with care because residual vapours are flammable.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

UN-No. : UN1993

14.2. UN proper shipping name

DOT Proper Shipping Name : Flammable liquids, n.o.s. (Kerosene, Petroleum)

Department of Transportation Hazard Classes : 3

Hazard labels :



Packing group : III

14.3. Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

Kerosene, petroleum (8008-20-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Solvent naphtha, petroleum, light aromatic (64742-95-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Pseudocumene (95-63-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %

Naphthalene (91-20-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	0.1 %

Xylenes (o-, m-, p- isomers) (1330-20-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %

Cumene (98-82-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %

15.2. US State regulations

100032	
State or local regulations	This product contains chemicals known to the State of California to cause cancer.

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

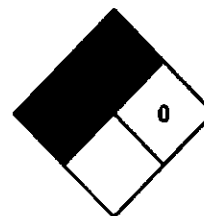
SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

IARC	International Agency for Research on Cancer.
	1 - Carcinogenic to humans; 2A - Probably carcinogenic to humans; 2B - Possibly carcinogenic to humans; 3 - Not classifiable; 4 - Probably not carcinogenic to humans.
NTP	National Toxicology Program.
	1 - Evidence of Carcinogenicity; 2 - Known Human Carcinogens; 3 - Reasonably anticipated to be Human Carcinogen; 4 - Substances delisted from report on Carcinogens; 5 - Twelfth Report - Items under consideration.

SECTION 16: Other information

Indication of changes : None.
Date of issue : 04/04/2014
Other information : None.

NFPA health hazard : 2
NFPA fire hazard : 2
NFPA reactivity : 0



This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

POWER SERVICE PRODUCTS, INC.
SAFETY DATA SHEET



SECTION 1 - IDENTIFICATION

PRODUCT NAME: DIESEL FUEL SUPPLEMENT +CETANE BOOST

Unless otherwise noted, all sections of this SDS apply to each of the following products and part numbers.

PART NUMBERS:

1:400 Treatment Ratio	1100, 1016-09, 1025-08, 1025-12, 1080-06
1:500 Treatment Ratio	1012-09, 1064-06
1:1,000 Treatment Ratio	1000, 1128-04, 1060-01
1:1,500 Treatment Ratio	1001, 1050-02, 1055-01, 1260-01

COMPANY IDENTIFICATION:

Power Service Products, Inc.
P.O. Box 1089
Weatherford, TX 76086
Email: psp@powerservice.com
Phone: 800-643-9089 or 817-599-9486
Fax: 817-599-4893

Emergency Phone Number: Within USA 1-800-424-9300. Outside USA 001-703-527-3887 (Call Collect).

RECOMMENDED USES: Diesel fuel additive

SECTION 2 – HAZARD(S) IDENTIFICATION

CLASSIFICATION UNDER 29 CFR 1910.1200(d)

(NC=product does not meet classification criteria)

	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Health Hazard Criteria	Category	Category	Category	Category
Acute Toxicity, Oral:	NC	NC	NC	NC
Acute Toxicity, Dermal:	NC	NC	NC	NC
Acute Toxicity, Inhalation, Vapors:	3	3	3	3
Skin Corrosion/Irritation:	2	2	2	2
Serious Eye Damage/Eye Irritation:	2	2	2	2
Respiratory Sensitization:	NC	NC	NC	NC

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	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Health Hazard Criteria	Category	Category	Category	Category
Skin Sensitization:	NC	NC	NC	NC
Germ Cell Mutagenicity:	NC	NC	NC	NC
Carcinogenicity:	2	2	2	2
Reproductive Toxicity:	NC	NC	NC	NC
Specific Target Organ Toxicity, Single Exposure:	3	3	3	3
Specific Target Organ Toxicity, Repeated or Prolonged Exposure:	NC	NC	NC	NC
Aspiration Hazard:	1	1	1	1

	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Physical Properties Criteria	Category	Category	Category	Category
Explosives:	NC	NC	NC	NC
Flammable Gases:	NC	NC	NC	NC
Flammable Aerosols:	NC	NC	NC	NC
Oxidizing Gases:	NC	NC	NC	NC
Gases Under Pressure:	NC	NC	NC	NC
Flammable Liquids:	3	3	3	3
Flammable Solids:	NC	NC	NC	NC
Self-Reactive Chemicals:	NC	NC	NC	NC
Pyrophoric Liquids:	NC	NC	NC	NC
Pyrophoric Solids:	NC	NC	NC	NC
Self-Heating Chemicals:	NC	NC	NC	NC
Chemicals Which, in Contact with Water, Emit Flammable Gases:	NC	NC	NC	NC
Oxidizing Liquids:	NC	NC	NC	NC
Oxidizing Solids:	NC	NC	NC	NC
Organic Peroxides:	NC	NC	NC	NC
Corrosive to Metals:	NC	NC	NC	NC

LABEL SIGNAL WORD, HAZARD STATEMENTS, SYMBOLS AND PRECAUTIONARY STATEMENTS UNDER 29 CFR 1910.1200(f):

Please see the Note regarding product labeling in Section 16.

	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Signal Word	Danger	Danger	Danger	Danger

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Hazard Statement(s): Flammable liquid and vapor. Toxic if inhaled. May be fatal if swallowed and enters airways. Causes skin and serious eye irritation. May cause respiratory irritation and drowsiness or dizziness.

Symbols: The following symbols are for all treatment ratios.



Precautionary Statement(s): Keep away from sparks and open flames. No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves and eye protection. Store locked up and in cool, well ventilated place. KEEP OUT OF REACH OF CHILDREN.

Hazards Not Otherwise Classified: None

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

The specific chemical identity and exact concentration percentage has been withheld as a Trade Secret. Specific chemical information will be made available to health professionals in accordance with 29 CFR 1910.1200.

INGREDIENTS CLASSIFIED AS HEALTH HAZARDS

TREATMENT RATIO 1:400			
Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Petroleum Distillates	Trade secret	Trade secret	25 - 85
Hydroxy alkoxyate	Trade secret	Trade secret	5 - 15
Alkyl Nitrates	Trade secret	Trade secret	2 – 8
Aromatic hydrocarbons	Trade secret	Trade secret	0.5 - 2
Naphthalene	Not available	91-20-3	0.05 – 0.2

TREATMENT RATIO 1:500			
Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Petroleum Distillates	Trade secret	Trade secret	25 - 85
Hydroxy alkoxyate	Trade secret	Trade secret	5 - 15
Alkyl Nitrates	Trade secret	Trade secret	2 – 8
Aromatic hydrocarbons	Trade secret	Trade secret	0.5 - 2
Naphthalene	Not available	91-20-3	0.05 – 0.2

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TREATMENT RATIO 1:1000			
Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Petroleum Distillates	Trade secret	Trade secret	35 - 85
Alkyl Nitrates	Trade secret	Trade secret	5 - 15
Aromatic Hydrocarbons	Trade secret	Trade secret	1 - 5
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	1 - 5
Naphthalene	Not available	91-20-3	0.1 – 0.5

TREATMENT RATIO 1:1500			
Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Petroleum Distillates	Trade secret	Trade secret	25 - 75
Alkyl Nitrates	Trade secret	Trade secret	8 - 22
Aromatic Hydrocarbons	Trade secret	Trade secret	1 - 8
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	1 – 5
Naphthalene	Not available	91-20-3	0.1 – 0.5

SECTION 4 - FIRST AID MEASURES

As a precaution, exposure to liquids, vapors, mists and fumes should be minimized.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.

SKIN CONTACT: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs get medical advice/attention.

INHALATION: Remove person to fresh air and keep comfortable for breathing. Call a doctor.

INGESTION: If swallowed, IMMEDIATELY call a doctor. Do NOT induce vomiting.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

SPECIFIC HAZARDS: Vapors are heavier than air and may travel along the ground to a distant ignition source and flash back. See Section 10 for Stability and Reactivity. **NOTE: EMPTY CONTAINERS CONTAIN COMBUSTIBLE VAPORS THAT CAN CAUSE FLASH FIRES OR EXPLOSIONS. CONTAINERS ARE SINGLE-TRIP CONTAINERS AND SHOULD NOT BE USED FOR ANY REASON**

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AFTER BEING EMPTIED. DO NOT USE CUTTING TORCH EQUIPMENT OR ANY OTHER FLAME OR OTHER SOURCES OF IGNITION ON ANY EMPTY CONTAINER.

PROTECTIVE EQUIPMENT AND PRECAUTIONS: Use standard protective equipment including self-contained breathing apparatus (SCBA).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas. Eliminate all sources of ignition in the vicinity of the spill or released vapor. See Section 2 for Hazards Identification. See Section 4 for First Aid Measures. See Section 5 for Fire Fighting Information. See Section 8 for Personal Protective Equipment.

SPILL CONTAINMENT AND CLEAN-UP: Eliminate potential sources of ignition. Stop leak if it can be done without risk. Dike and contain spill. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. A vapor suppressing foam may be used to reduce vapors. Local, state and federal laws and/or regulations may apply to releases and disposal of this material, as well as those materials and items employed in the clean-up releases. The user/responder will need to determine which local, state and federal laws and/or regulations are applicable. The National Response Center can be reached at 1-800-424-8802.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with eyes and skin. Use only with adequate ventilation. Use proper bonding and/or grounding procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Keep away from ignition sources such as heat, sparks, and flames. No smoking.

CONDITIONS FOR SAFE STORAGE: DO NOT USE OR STORE near heat, sparks, or flame. USE AND STORE ONLY IN A WELL-VENTILATED AREA. Handle containers with care. Keep container tightly closed when not in use. Store locked up.

STORAGE TEMPERATURE:

Treatment Ratio	Part Numbers:	Storage Temperature:
1:400 Treatment Ratio	1100, 1016-06, 1016-09, 1025-06, 1025-08, 1025-09, 1025-12, 1080-06, 11016-06, 11016-09, 11025-06, 11025-12, 11080-06	-20°F to 104°F (-29°C to 40°C)
1:500 Treatment Ratio	1012-09, 1064-06	-20°F to 104°F (-29°C to 40°C)

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1:1,000 Treatment Ratio	1000, 1128-04, 1060-01	0°F to 104°F (-18°C to 40°C)
1:1,500 Treatment Ratio	1001, 1050-02, 1055-01, 1260-01	10°F to 104°F (-12°C to 40°C)

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN COMBUSTIBLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

	CAS #	OSHA	ACGIH	NIOSH				Note
		PEL	TLV	STEL	REL	STEL	IDLH	
Ethylbenzene	100-41-4	100 ppm	20 ppm	not est.	100 ppm	125 ppm	800 ppm (LEL)	n/a
Naphthalene	91-20-3	10 ppm	10 ppm	not est.	10 ppm	15 ppm	250 ppm	skin
Petroleum Distillates	n/a	500 ppm	not est.	not est.	not est.	not est.	not est.	n/a
Cumene	98-82-8	50 ppm	50 ppm	not est.	50 ppm	not est.	900 ppm (LEL)	Skin
Toluene	108-88-3	100 ppm	20 ppm	not est.	100 ppm	150 ppm	500 ppm	Skin
Hydroxy Alkoxyate	Proprietary	50 ppm	20 ppm	not est.	5 ppm	not est.	not est.	skin

ENGINEERING CONTROLS: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Local exhaust ventilation is recommended to control exposure.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Eyes and Face: Eye protection such as safety glasses or chemical goggles is recommended if contact is likely.

Skin: Protective chemical/oil resistant gloves are recommended. Wear additional protective clothing as appropriate.

Respiratory: Wear a NIOSH/MSHA approved respirator as necessary.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Practice good housekeeping.

NOTE: These precautions are for room temperature handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Appearance	Liquid, brown	Liquid, brown	Liquid, brown	Liquid, brown
Odor	Aromatic solvent	Aromatic solvent	Aromatic solvent	Aromatic solvent
Odor Threshold	Not available	Not available	Not available	Not available
pH	Not applicable	Not applicable	Not applicable	Not applicable
Melting point/Freezing point	Not available	Not available	Not available	Not available
Initial Boiling Point and Boiling Range	221.5°F (105.3°C)	297.3°F (147.4°C)	300.9°F (149.4°C)	290.3°F (143.5°C)
Flash Point	101°F (38.3°C)	113°F (45.0°C)	123°F (50.6°C)	116°F (46.7°C)
Evaporation Rate	Not available	Not available	Not available	Not available
Flammability	Not available	Not available	Not available	Not available
Upper / lower Flammability or Explosive Limits	Not available	Not available	Not available	Not available
Vapor Pressure	Not available	Not available	Not available	Not available
Vapor Density	Not available	Not available	Not available	Not available
Relative Density/Specific Gravity	0.9238	0.9232	0.9291	0.9342
Solubility	Not available	Not available	Not available	Not available
Partition Coefficient; n-octanol / water	Not available	Not available	Not available	Not available
Auto-ignition Temperature	Not available	Not available	Not available	Not available
Decomposition temperature	Not available	Not available	Not available	Not available
Viscosity @ 40°C	Not available	3.823 cSt	8.072 cSt	16.90 cSt
Pour Point	-55°F (-48°C)	-54°F (-48°C)	-27°F (-33°C)	-11°F (-24°C)

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: see Incompatible Materials below

CHEMICAL STABILITY: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

POSSIBILITY OF HAZARDOUS REACTION: Hazardous polymerization will not occur.

CONDITIONS TO AVOID: Flames, high energy ignition sources, and elevated temperatures.

INCOMPATIBLE MATERIALS: May react with strong oxidizing agents, such as; chlorates, nitrates, peroxides, nitrogen oxides, sulfur oxides, etc.; alkalis; nitric acid; sulfuric acid; aluminum; brass; copper; reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides, products of incomplete combustion.

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SECTION 11 - TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE

	INGESTION	INHALATION	SKIN CONTACT	EYE CONTACT	SKIN ABSORPTION
1:400 Treatment Ratio		X	X	X	X
1:500 Treatment Ratio		X	X	X	X
1:1000 Treatment Ratio		X	X	X	X
1:1500 Treatment Ratio		X	X	X	X

SYMPTOMS RELATED TO PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS: Breathing of high vapor concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. The vapor or fumes from this material may cause respiratory irritation. Breathing this material at elevated concentrations causes central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors, or convulsions, loss of consciousness, coma or death.

DELAYED AND IMMEDIATE EFFECTS AND CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE: Repeated skin exposure to a component of this product may cause irritation, even a burn; may cause a more severe response on covered skin, such as under clothing or gloves. Inhalation exposure to a component of this product has caused fetotoxicity in the presence of maternal toxicity in animals.

NUMERICAL MEASURES OF TOXICITY

Note: the information provided below are estimates; testing of the product is not available.

Treatment Ratio	Acute Oral Toxicity (ATE _{mix} estimate)	Acute Dermal Toxicity (ATE _{mix} estimate)	Acute Inhalation (ATE _{mix} estimate)
1:400 Treatment Ratio	Does not meet criteria	Does not meet criteria	7.12 (vapors)
1:500 Treatment Ratio	Does not meet criteria	Does not meet criteria	6.60 (vapors)
1:1,000 Treatment Ratio	Does not meet criteria	Does not meet criteria	7.57 (vapors)
1:1,500 Treatment Ratio	Does not meet criteria	Does not meet criteria	6.73 (vapors)

SENSITIZATION: No information available.

MUTAGENICITY: No information available.

CARCINOGENICITY LISTINGS – the following chemicals are listed as indicated:

Chemical	List
Cumene	IARC, NTP
Ethylbenzene	IARC
Naphthalene	IARC, NTP

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REPRODUCTIVE TOXICITY: No information available.

TERATOGENICITY/EMBRYOTOXICITY: Hydroxy Alkoxyate has caused fetotoxicity with maternal toxicity. This product contains a component of a complex mixture (Xylenes (1330-20-7)) that has been shown to cause teratogenicity and/or embryotoxicity.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Respiratory tract irritation, drowsiness/dizziness.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): No information available

ASPIRATION HAZARD: Aspiration hazard identified.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: This material is expected to be toxic to aquatic organisms.

PERSISTENCE AND DEGRADABILITY: No information available.

BIOACCUMULATIVE POTENTIAL: No information available.

MOBILITY IN SOIL: No information available.

OTHER ADVERSE EFFECTS: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Information: Disposal of unused product may be subject to RCRA hazardous waste regulations (40 CFR Part 261). Disposal of the used product may also be regulated as hazardous waste due to resulting mixture characteristics, mixture components or product use. Such changes to the product may result in different and/or additional hazardous waste codes. Potential RCRA waste code based on the product as shipped: D001 IGNITABILITY

State or local laws may impose additional regulatory requirements regarding disposal. *Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.*

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN COMBUSTIBLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA. Dispose or recycle empty containers appropriately per local, state and federal regulations.

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SECTION 14 - TRANSPORTATION INFORMATION

The following part numbers are regulated for transportation as follows:

<p>1016-09 1025-12 1080-06</p>	<p>DOT (Domestic Ground): Not Regulated</p> <hr/> <p>IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates), 3, III (38.3°C c.c.), LTD QTY</p>
<p>1012-09 1064-06</p>	<p>DOT (Domestic Ground): Not Regulated</p> <hr/> <p>IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates), 3, III (45°C c.c.), LTD QTY</p>
<p>1060-01</p>	<p>DOT (Domestic Ground): NA 1993 Combustible liquid, n.o.s. (Petroleum Distillates) Comb liq, III, MP (2-Ethylhexyl Nitrate)</p> <hr/> <p>IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates), 3, III (50.6°C c.c.), MP (2-Ethylhexyl Nitrate)</p>
<p>1128-04</p>	<p>DOT (Domestic Ground): Not Regulated</p> <hr/> <p>IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates), 3, III (50.6°C c.c.), LTD QTY</p>
<p>1260-01</p>	<p>DOT (Domestic Ground): NA 1993 Combustible liquid, n.o.s. (Petroleum Distillates) Comb liq, III, MP (2-Ethylhexyl Nitrate)</p> <hr/> <p>IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates), 3, III (46.7°C c.c.), MP (2-Ethylhexyl Nitrate)</p>
<p>1100</p>	<p>DOT (Domestic Ground): NA 1993 Combustible liquid, n.o.s. (Petroleum Distillates) Comb liq, III, MP (2-Ethylhexyl Nitrate)</p> <hr/> <p>IMDG (Ocean Transport): Not offered</p>

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1000 1001	DOT (Domestic Ground): NA 1993 Combustible liquid, n.o.s. (Petroleum Distillates) Comb liq, III, MP (2-Ethylhexyl Nitrate) RQ (Xylene, Napthalene)
	IMDG (Ocean Transport): Not offered

All Part Numbers not recommended for transport by air.

SECTION 15 - REGULATORY INFORMATION

§14(a) Consumer Product Safety Act General Certificate of Conformity

Power Service Products, Inc. certifies that this product meets the statutory and regulatory requirements of the US Consumer Products Safety Act, the Federal Hazardous Substances Act, and the Poison Prevention Packaging Act of 1970, as applicable. The Power Service products are manufactured in the United States in Weatherford, Texas, unless otherwise indicated on the product label. The product manufacture lot code is stamped on the product container. This Certification is based upon a reasonable testing program conducted by Power Service Products, Inc. which includes a quality control program incorporating, as necessary, confirmation of compliance by component suppliers. Third-party testing is not required to certify compliance. Further details may be obtained by contacting the Power Service Products, Inc. EHS Manager at 1-800-643-9089.

Contents of this SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS:

All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.

EPA SARA TITLE III CHEMICAL LISTINGS:

Section 302 Extremely Hazardous Substances: None

Sections 311/ 312 Hazard Class:

Acute Health Effects: Yes Sudden Release of Pressure Hazard: No
 Chronic Health Effects: Yes Reactivity Hazard: No
 Fire Hazard: Yes

NFPA (NATIONAL FIRE PROTECTION ASSOCIATION) RATING:

HEALTH: 2
 FIRE: 2
 REACTIVITY: 0

Section 313:

Specific chemical information is being withheld as a Trade Secret. The following chemicals subject to the reporting requirements of EPCRA Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (40 CFR Part 372) may be present in this product at a concentration that does not exceed the specified upper weight percentage.

Treatment Ratio	CAS Number	Chemical Name	Max %
1:400 Treatment Ratio	100-41-4	Ethylbenzene	1.5
	Not available	Glycol Ether Category	8.0
	91-20-3	Naphthalene	0.2
1:500 Treatment Ratio	100-41-4	Ethylbenzene	1.5
	Not available	Glycol Ether Category	10.0
	91-20-3	Naphthalene	0.2
1:1,000 Treatment Ratio	100-41-4	Ethylbenzene	0.2
	Not available	Glycol Ether Category	0.4
	91-20-3	Naphthalene	0.3
1:1,500 Treatment Ratio	100-41-4	Ethylbenzene	0.2
	Not available	Glycol Ether Category	0.6
	91-20-3	Naphthalene	0.5

State or local laws may impose additional regulatory requirements for components of this material. It is the responsibility solely of the Employer to maintain compliance with State and Local reporting.

This product contains a chemical known to the state of California to cause cancer and/or birth defects or other reproductive harm: ethylbenzene, toluene, cumene, naphthalene.

SECTION 16 – OTHER INFORMATION

DATE OF PREPARATION / REVISION: February 25, 2020

NOTE regarding product labeling: The OSHA Hazard Communication Standard applies to hazardous chemicals known to be present in the workplace. However, the labeling and Safety Data Sheet requirements do not apply to consumer products when they are used in the workplace for the purposes intended by the manufacturer and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the intended purpose. Power Service Products intends for product packaged in 1 gallon or smaller containers to be used by consumers and has labeled those containers as required under the Consumer Product Safety Commission regulations. Power Service Products intends for product packaged in containers larger than 1 gallon to be used in the workplace and has labeled those products as required by the OSHA Hazard Communication Standard. The Consumer Product Safety Commission and OSHA Hazard Communication Standard labeling requirements are different and variations between the consumer and industrial labels may occur. It is the employer's responsibility to purchase the appropriate product for use in the workplace.

The information contained herein is offered in good faith and is believed to be accurate based on the data available to us as of the date of SDS preparation. The information in this document applies to this specific

Revised: February 25, 2021

Supersedes: October 9, 2020

POWER SERVICE DIESEL FUEL SUPPLEMENT +CETANE BOOST

product as supplied. It may not be appropriate for this product if the product is used in combination with other materials. The information in this document is not intended to constitute product performance information. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product. No statement shall be construed as an endorsement of any product or process. The recommended industrial hygiene and safe handling procedures are believed to be valid in the context of the intended use as described in product labeling. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. You are urged to obtain material safety data sheets for all products you buy, process, use or distribute, and are encouraged to advise those who may come in contact with such products of the information contained therein. Regulatory requirements are subject to change and may differ between locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. No warranty or guarantee is expressed or implied with respect to this product, the accuracy and sufficiency of the data or recommendations herein, or the results to be obtained from the use of this product. IN NO EVENT SHALL POWER SERVICE PRODUCTS, INC. BE LIABLE FOR ANY LOSS, CLAIM, DAMAGE OR LIABILITY OF ANY KIND, WHICH MAY ARISE FROM OR IN CONNECTION WITH THE INFORMATION CONTAINED IN THIS DOCUMENT OR FROM THE USE, HANDLING OR STORAGE OF THE PRODUCT BY THE BUYER/USER, WHETHER DIRECT, INDIRECT, OR CONSEQUENTIAL, OR FOR ANY CLAIM BY ANY THIRD PARTY, BEYOND THE PURCHASE PRICE OR REPLACEMENT OF THE PRODUCT IN CONNECTION WITH WHICH SUCH LOSS, CLAIM, DAMAGE OR LIABILITY AROSE.

THE FOREGOING LIMITATIONS APPLY REGARDLESS OF THE CAUSES OR CIRCUMSTANCES GIVING RISE TO SUCH LOSS, CLAIM, DAMAGE OR LIABILITY, EVEN IF SUCH LOSS, CLAIM, DAMAGE, OR LIABILITY IS BASED ON NEGLIGENCE OR OTHER TORTS OR BREACH OF CONTRACT.



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Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 12/16/2014 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Trade name : Northland Diesel Guard Premix 50/50
Product code : 81P1

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Engine Coolant and Antifreeze

1.3. Details of the supplier of the safety data sheet

Northland Products Company
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Acute Tox. 4 (Oral) H302
STOT RE 2 H373

2.2. Label elements

GHS-US labelling
Hazard pictograms (GHS-US)



Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H302 - Harmful if swallowed
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)
Precautionary statements (GHS-US) : P260 - Do not breathe mist, spray, vapours, fume, gas
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P301+P312 - If swallowed: Call a POISON CENTER if you feel unwell
P314 - Get medical advice/attention if you feel unwell
P330 - Rinse mouth
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

other hazards which do not result in classification : Spills of this product present a serious slipping hazard.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Ethylene glycol	(CAS No) 107-21-1	>48	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Sodium hydroxide	(CAS No) 1310-73-2	<0.4	Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314

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Name	Product Identifier	%	GHS-US classification
Sodium nitrite	(CAS No) 7632-00-0	<0.4	Acute Tox. 3, H301 Eye Irrit. 2A, H319 Carc. 1B, H350 Aquatic Acute 1, H400
Triethanolamine	(CAS No) 102-71-6	<0.4	Skin Corr. 1A, H314 Eye Irrit. 2A, H319
Disodium tetraborate	(CAS No) 1330-43-4	<0.2	Repr. 1B, H360 (C ≥ 4.5%)
Sodium metasilicate	(CAS No) 6834-92-0	<0.1	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 STOT SE 3, H335

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Keep victim warm and rested. Assure fresh air breathing. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice. Call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. If victim is drowsy or unconscious, place on the left side with head down. Do not leave affected person unattended.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes damage to organs (kidneys) (Oral).
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: May cause irritation to the respiratory tract and to other mucous membranes. Overexposure may cause : Dizziness, headaches, nausea. Repeated exposure to aerosols may result in lung damage.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
- Symptoms/injuries after eye contact : Mist and vapours; May cause eye irritation. Symptoms include stinging, watering, redness, and swelling.
- Symptoms/injuries after ingestion : Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard. May cause damage to kidneys if swallowed. Death in extreme cases.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. After ingestion, ethylene glycol is rapidly absorbed (within 1 to 4 hours) through the stomach. Following absorption, 80% or more of ethylene glycol is chemically converted by the body into toxic compounds. The course of ethylene glycol toxicity is classically divided into three broad overlapping categories of adverse health effects. Stage 1 (the neurological stage) lasts from 30 minutes to 12 hours after ingestion. Stage 2 (the cardiopulmonary stage) occurs between 12 and 24 hours after ingestion. Stage 3 (the renal stage) occurs between 24 and 72 hours after ingestion. Adverse health effects can be delayed significantly by the co-ingestion of alcohol. The affected person must rest and be kept under medical observation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Toxic gases and fumes may be released in a fire. Thermal combustion may release carbon monoxide and dioxide, unburned hydrocarbons.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Do Not use welding or cutting torch on or near drum (even empty) . Use personal protective equipment as required. Relevant water authorities should be notified of any large spillage to water course or drain. Avoid breathing mist or vapor.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ensure adequate ventilation, especially in confined areas.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. Ensure all national/local regulations are observed.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product.

Precautions for safe handling : Obtain special instructions before use. Read label before use. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : A washing facility/water for eye and skin cleaning purposes should be present. Ensure adequate ventilation.

Storage conditions : Keep out of reach of children. Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep container closed when not in use. Keep away from open flames, hot surfaces and sources of ignition. Protect against direct sunlight.

Incompatible materials : Strong acid. Base. Oxidizing agents. Refer to Section 10 on Incompatible Materials.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters


Ethylene glycol (107-21-1)		
USA ACGIH	ACGIH Ceiling (mg/m ³)	100 mg/m ³ (aerosol only)
Disodium tetraborate (1330-43-4)		
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (inhalable fraction)
USA ACGIH	ACGIH STEL (mg/m ³)	6 mg/m ³ (inhalable fraction)
Sodium hydroxide (1310-73-2)		
USA ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	2 mg/m ³
Triethanolamine (102-71-6)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³

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8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.
- 
- Hand protection : Wear protective gloves. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- Eye protection : Chemical goggles or safety glasses, with side-shields.
- Skin and body protection : Chemical resistant suit, Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection. Wear breathing apparatus if exposed to vapours/dusts/aerosols.
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear.
- Colour : Purple.
- Odour : Odourless.
- Odour threshold : No data available
- pH : 7.5 - 10.5
- Relative evaporation rate (butyl acetate=1) : 0.01
- Melting point : No data available
- Freezing point : -37 °C (-34 °F)
- Boiling point : 197 °C (387 °F)
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapour pressure : 0.008 kPa
- Relative vapour density at 20 °C : 2.1
- Relative density : 1.08 g/cm³ at 15.6 °C / 60 °F
- Solubility : Water: completely soluble
- Log Pow : -1.07
- Log Kow : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : No data available
- Explosive properties : No data available
- Oxidising properties : No data available
- Explosive limits : No data available

9.2. Other information

- VOC content : 48 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

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10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents. alkalis. Alkaline earth metals.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

Ethylene glycol (107-21-1)	
LD50 oral rat	4000 - 10200 mg/kg
LD50 dermal rat	10600 mg/kg
ATE CLP (oral)	500.000 mg/kg bodyweight

Sodium metasilicate (6834-92-0)	
LD50 oral rat	600 mg/kg
ATE CLP (oral)	600.000 mg/kg bodyweight

Disodium tetraborate (1330-43-4)	
LD50 oral rat	2660 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
ATE CLP (dermal)	1350.000 mg/kg bodyweight

Sodium nitrite (7632-00-0)	
LD50 oral rat	85 mg/kg

Triethanolamine (102-71-6)	
LD50 oral rat	6400 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation	: Not classified pH: 7.5 - 10.5
Serious eye damage/irritation	: Not classified pH: 7.5 - 10.5
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: May cause irritation to the respiratory tract and to other mucous membranes. Overexposure may cause : Dizziness, headaches, nausea. Repeated exposure to aerosols may result in lung damage.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.

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Symptoms/injuries after eye contact	: Mist and vapours; May cause eye irritation. Symptoms include stinging, watering, redness, and swelling.
Symptoms/injuries after ingestion	: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard. May cause damage to kidneys if swallowed. Death in extreme cases.

SECTION 12: Ecological information

12.1. Toxicity

Ethylene glycol (107-21-1)	
LC50 fishes 1	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
Sodium metasilicate (6834-92-0)	
LC50 fishes 1	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
LC50 fish 2	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
Disodium tetraborate (1330-43-4)	
LC50 fishes 1	340 mg/l (Exposure time: 96 h - Species: Limanda limanda)
EC50 Daphnia 1	1085 - 1402 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Sodium hydroxide (1310-73-2)	
LC50 fishes 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
Sodium nitrite (7832-00-0)	
LC50 fishes 1	0.54 mg/l (Exposure time: 96 h - Species: Rainbow Trout)
EC50 Daphnia 1	15.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Gree Algae	>100 mg/l (Exposure time: 72 h - Species: Scenedesmus subspicatus)
Triethanolamine (102-71-8)	
LC50 fishes 1	10610-13010 mg/l (Exposure time: 96 h - Species: Flathead minnow)

12.2. Persistence and degradability

Northland Diesel Guard Premix 50/50	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Diesel Guard Premix 50/50	
Log Pow	-1.07
Bioaccumulative potential	Not established.
Ethylene glycol (107-21-1)	
Log Pow	-1.93
Disodium tetraborate (1330-43-4)	
BCF fish 1	(no evidence of bioaccumulation)
Triethanolamine (102-71-8)	
Log Pow	-1.00

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose of contents/container to comply with applicable local, national and international regulations. Disposal must be done according to official regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. Do not re-use empty containers. Since emptied containers retain product residue, follow label warnings even after container is emptied.
Additional information	: It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Empty container retains product residue.
Ecology - waste materials	: Avoid release to the environment.

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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Northland Diesel Guard Premix 50/50

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	7246 lb
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Ethylene glycol (107-21-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on United States SARA Section 313

EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	5000 lb
SARA Section 313 - Emission Reporting	1.0 %

Sodium metasilicate (6834-92-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Disodium tetraborate (1330-43-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
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Sodium nitrite (7632-00-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Triethanolamine (102-71-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Ethylene glycol (107-21-1)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
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Sodium metasilicate (6834-92-0)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class E - Corrosive Material
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Disodium tetraborate (1330-43-4)

Listed on the Canadian DSL (Domestic Substances List)

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Sodium hydroxide (1310-73-2)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class E - Corrosive Material
Sodium nitrite (7632-00-0)	
Listed on the Canadian DSL (Domestic Substances List)	
Triethanolamine (102-71-6)	
Listed on the Canadian DSL (Domestic Substances List)	

EU-Regulations

Ethylene glycol (107-21-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Sodium metasilicate (6834-92-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Disodium tetraborate (1330-43-4)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Sodium hydroxide (1310-73-2)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Sodium nitrite (7632-00-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Triethanolamine (102-71-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

15.2.2. National regulations

Ethylene glycol (107-21-1)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List)
Sodium metasilicate (6834-92-0)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List)
Disodium tetraborate (1330-43-4)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on the Canadian IDL (Ingredient Disclosure List)

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Sodium hydroxide (1310-73-2)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Listed on the Canadian IDL (Ingredient Disclosure List)

Sodium nitrite (7632-00-0)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

Triethanolamine (102-71-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

Ethylene glycol (107-21-1)

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Illinois - Toxic Air Contaminants
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
U.S. - Massachusetts - Allowable Ambient Limits (AALs)
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
U.S. - Massachusetts - Drinking Water Guidelines
U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Threshold Effects Exposure Limits (TELEs)
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Occupational Exposure Limits - Ceilings
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Groundwater Health Risk Limits
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - Ceilings
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Environmental Hazardous Substances List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Water Quality - Ground Water Quality Criteria
U.S. - New Jersey - Water Quality - Practical Quantitation Levels (PQLs)
U.S. - New York - Occupational Exposure Limits - Ceilings
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories
U.S. - Tennessee - Occupational Exposure Limits - Ceilings
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Northland Diesel Guard Premix 50/50

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Ethylene glycol (107-21-1)

U.S. - Washington - Permissible Exposure Limits - Ceilings
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

Sodium metasilicate (6834-92-0)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Disodium tetraborate (1330-43-4)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Massachusetts - Right To Know List
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New York - Occupational Exposure Limits - TWAs
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs

Sodium hydroxide (1310-73-2)

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Louisiana - Reportable Quantity List for Pollutants
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Right To Know List
U.S. - Massachusetts - Toxics Use Reduction Act
U.S. - Michigan - Occupational Exposure Limits - Ceilings
U.S. - Michigan - Polluting Materials List
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - Ceilings
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New York - Occupational Exposure Limits - Ceilings
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories
U.S. - Tennessee - Occupational Exposure Limits - Ceilings
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - Ceilings
U.S. - Washington - Permissible Exposure Limits - Ceilings
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Sodium nitrite (7632-00-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Rhode Island - Right to Know Hazardous Substance List

Triethanolamine (102-71-6)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (oral)	Acute toxicity (oral), Category 4
Acute Tox. 4 (dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 3 (oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Acute toxicity (aquatic), Category 1
Carc. 1B	Carcinogen, Category 1B
Eye irrit. 2A	Serious eye irritation, Category 2A
Repr. 1B	Reproductive toxicity Category 1B
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H301	Toxic if swallowed
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks.

**POWER SERVICE PRODUCTS, INC.
SAFETY DATA SHEET**



SECTION 1 - IDENTIFICATION

PRODUCT NAME: DIESEL KLEEN +CETANE BOOST

Unless otherwise noted, all sections of this SDS apply to each of the following products and part numbers.

PART NUMBERS:

1:400 Treatment Ratio	3016-09, 3025-08, 3025-12, 3080-06, 3100
1:500 Treatment Ratio	3012-09, 3064-06
1:1,000 Treatment Ratio	3128-04, 3101
1:1,500 Treatment Ratio	3850-02, 3855-01, 3860-01, 3800

COMPANY IDENTIFICATION:

Power Service Products, Inc.
P.O. Box 1089
Weatherford, TX 76086
Email: psp@powerservice.com
Phone: 800/643-9089 or 817-599-9486
Fax: 817-599-4893

Emergency Phone Number: Within USA 1-800-424-9300. Outside USA 001-703-527-3887 (Call Collect).

RECOMMENDED USES: Diesel fuel additive

SECTION 2 – HAZARD(S) IDENTIFICATION

CLASSIFICATION UNDER 29 CFR 1910.1200(d)

(NC=product does not meet classification criteria)

	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Health Hazard Criteria	Category	Category	Category	Category
Acute Toxicity, Oral:	NC	NC	NC	NC
Acute Toxicity, Dermal:	NC	NC	NC	NC
Acute Toxicity, Inhalation, Vapors:	3	3	3	3
Skin Corrosion/Irritation:	2	2	2	2
Serious Eye Damage/Eye Irritation:	2	2	2	2
Respiratory Sensitization:	NC	NC	NC	NC



	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Health Hazard Criteria	Category	Category	Category	Category
Skin Sensitization:	NC	NC	NC	NC
Germ Cell Mutagenicity:	NC	NC	NC	NC
Carcinogenicity:	2	2	2	2
Reproductive Toxicity:	NC	NC	NC	NC
Specific Target Organ Toxicity, Single Exposure:	3	3	3	3
Specific Target Organ Toxicity, Repeated or Prolonged Exposure:	NC	NC	NC	NC
Aspiration Hazard:	1	1	1	1

	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Physical Properties Criteria	Category	Category	Category	Category
Explosives:	NC	NC	NC	NC
Flammable Gases:	NC	NC	NC	NC
Flammable Aerosols:	NC	NC	NC	NC
Oxidizing Gases:	NC	NC	NC	NC
Gases Under Pressure:	NC	NC	NC	NC
Flammable Liquids:	3	3	3	4
Flammable Solids:	NC	NC	NC	NC
Self-Reactive Chemicals:	NC	NC	NC	NC
Pyrophoric Liquids:	NC	NC	NC	NC
Pyrophoric Solids:	NC	NC	NC	NC
Self-Heating Chemicals:	NC	NC	NC	NC
Chemicals Which, in Contact with Water, Emit Flammable Gases:	NC	NC	NC	NC
Oxidizing Liquids:	NC	NC	NC	NC
Oxidizing Solids:	NC	NC	NC	NC
Organic Peroxides:	NC	NC	NC	NC
Corrosive to Metals:	NC	NC	NC	NC

LABEL SIGNAL WORD, HAZARD STATEMENTS, SYMBOLS AND PRECAUTIONARY STATEMENTS UNDER 29 CFR 1910.1200(f):

Please see the Note regarding product labeling in Section 16.

	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Signal Word	Danger	Danger	Danger	Danger

Hazard Statements:	
TREATMENT RATIOS: 1:400, 1:500 and 1:1000	TREATMENT RATIOS: 1:1500
Flammable liquid and vapor. Toxic if inhaled. May be fatal if swallowed and enters airways. Causes skin and serious eye irritation. May cause respiratory irritation.	Combustible liquid. Toxic if inhaled. May be fatal if swallowed and enters airways. Causes skin and serious eye irritation. May cause respiratory irritation.
Symbols:	
	
Precautionary Statement(s):	
Keep away from sparks and open flames. No smoking. Keep container tightly closed. Use only non-sparking tools. Ground/Bond container and receiving equipment. Use explosion-proof pumps when pumping. Take precautionary measures against static discharge. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves and eye protection. Store locked up and in cool, well ventilated place. KEEP OUT OF REACH OF CHILDREN.	Keep away from flames and hot surfaces. No smoking. Keep container tightly closed. Avoid breathing vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves and eye protection. Store locked up and in cool, well ventilated place. KEEP OUT OF REACH OF CHILDREN.
Hazards Not Otherwise Classified:	
None	None

SECTION 3 - COMPOSITION / INFORMATION ON SUBSTANCES

The specific chemical identity and exact concentration percentage has been withheld as a Trade Secret. Specific chemical information will be made available to health professionals in accordance with 29 CFR 1910.1200.

INGREDIENTS CLASSIFIED AS HEALTH HAZARDS

TREATMENT RATIO 1:400			
Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Petroleum Distillates	Trade secret	Trade secret	40 - 90
Alkyl Nitrates	Trade secret	Trade secret	10 - 30
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	1 - 5

TREATMENT RATIO 1:500			
Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Petroleum Distillates	Trade secret	Trade secret	40 - 90
Alkyl Nitrates	Trade secret	Trade secret	10 - 30
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	1 - 5

TREATMENT RATIO 1:1000			
Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Petroleum Distillates	Trade secret	Trade secret	25 - 65
Alkyl Nitrates	Trade secret	Trade secret	20 - 50
Aromatic hydrocarbons	Trade secret	Trade secret	1 - 5
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	5 - 10

TREATMENT RATIO 1:1500			
Chemical Name	Common Name/Synonyms	CAS Number	Concentration (%)
Alkyl Nitrates	Trade secret	Trade secret	35 - 80
Petroleum Distillates	Trade secret	Trade secret	10 - 25
Hexan-1-ol, 2-ethyl	Trade secret	Trade secret	5 - 12
Aromatic Hydrocarbons	Trade secret	Trade secret	2 - 5

SECTION 4 - FIRST AID MEASURES

As a precaution, exposure to liquids, vapors, mists and fumes should be minimized.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.

SKIN CONTACT: Wash with plenty of water. Take remove contaminated clothing and wash it before reuse. If skin irritation occurs get medical advice/attention.

INHALATION: Remove person to fresh air and keep comfortable for breathing. Call a doctor.

INGESTION: If swallowed, IMMEDIATELY call a doctor. Do NOT induce vomiting.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

SPECIFIC HAZARDS: Vapors are heavier than air and may travel along the ground to a distant ignition source and flash back. See Section 10 for Stability and Reactivity. **NOTE:** EMPTY CONTAINERS CONTAIN COMBUSTIBLE VAPORS THAT CAN CAUSE FLASH FIRES OR

EXPLOSIONS. CONTAINERS ARE SINGLE-TRIP CONTAINERS AND SHOULD NOT BE USED FOR ANY REASON AFTER BEING EMPTIED. DO NOT USE CUTTING TORCH EQUIPMENT OR ANY OTHER FLAME OR OTHER SOURCES OF IGNITION ON ANY EMPTY CONTAINER.

PROTECTIVE EQUIPMENT AND PRECAUTIONS: Use standard protective equipment including self-contained breathing apparatus (SCBA).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas. Eliminate all sources of ignition in the vicinity of the spill or released vapor. See Section 2 for Hazards Identification. See Section 4 for First Aid Measures. See Section 5 for Fire Fighting Information. See Section 8 for Personal Protective Equipment.

SPILL CONTAINMENT AND CLEAN-UP: Eliminate potential sources of ignition. Stop leak if it can be done without risk. Dike and contain spill. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. A vapor suppressing foam may be used to reduce vapors. Local, state and federal laws and/or regulations may apply to releases and disposal of this material, as well as those materials and items employed in the clean-up releases. The user/responder will need to determine which local, state and federal laws and/or regulations are applicable. The National Response Center can be reached at 1-800-424-8802.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with eyes and skin. Use only with adequate ventilation. Use proper bonding and/or grounding procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Keep away from ignition sources such as heat, sparks, and flames. No smoking.

CONDITIONS FOR SAFE STORAGE: DO NOT USE OR STORE near heat, sparks, or flame. USE AND STORE ONLY IN A WELL-VENTILATED AND COOL AREA. Handle containers with care. Keep container tightly closed when not in use. Store locked up.

STORAGE TEMPERATURE:

Treatment Ratio	Part Numbers:	Storage Temperature:
1:400 Treatment Ratio	3016-09, 3025-08, 3025-12, 3080-06, 3100	0°F - 104°F (-18°C - 40°C)
1:500 Treatment Ratio	3012-09, 3064-06	0°F - 104°F (-18°C - 40°C)

1:1,000 Treatment Ratio	3128-04, 3101	0°F - 104°F (-18°C - 40°C)
1:1,500 Treatment Ratio	3850-02, 3855-01, 3860-01, 3800	0°F - 104°F (-18°C - 40°C)

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN COMBUSTIBLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

	CAS #	OSHA	ACGIH		NIOSH			Note
		PEL	TLV	STEL	REL	STEL	IDLH	
Ethylbenzene	100-41-4	100 ppm	20 ppm	not est.	100 ppm	125 ppm	800 ppm (LEL)	n/a
Naphthalene	91-20-3	10 ppm	10 ppm	not est.	10 ppm	15 ppm	250 ppm	skin
Petroleum Distillates	n/a	500 ppm	not est.	not est.	not est.	not est.	not est.	n/a
1,2,4-trimethylbenzene	95-63-6	not est.	25 ppm	not est.	25 ppm	not est.	not est.	n/a
Xylene, mixed isomers	1330-20-7	100 ppm	100 ppm	150 ppm	100 ppm	150 ppm	900 ppm	n/a
Cumene	98-82-8	50 ppm	50 ppm	not est.	50 ppm	not est.	900 ppm (LEL)	skin

ENGINEERING CONTROLS: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Local exhaust ventilation is recommended to control exposure.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Eyes and Face: Eye protection such as safety glasses or chemical goggles is recommended if contact is likely.

Skin: Chemical/oil resistant clothing and gloves are recommended. Wear additional protective clothing as appropriate.

Respiratory: Wear a NIOSH/MSHA approved respirator as necessary.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Practice good housekeeping.

NOTE: These precautions are for room temperature handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

	1:400 Treatment Ratio	1:500 Treatment Ratio	1:1000 Treatment Ratio	1:1500 Treatment Ratio
Appearance	Liquid, straw color	Liquid, straw color	Liquid, brown	Liquid, brown
Odor	Aromatic solvent	Aromatic solvent	Aromatic solvent	Aromatic solvent
Odor Threshold	Not available	Not available	Not available	Not available
pH	Not applicable	Not applicable	Not applicable	Not applicable
Melting point/Freezing point	Not available	Not available	Not available	Not available
Initial Boiling Point and Boiling Range	194.6°F (90.0°C)	185.9°F (85.5°C)	280.6°F (138.0°C)	249.4°F (120.8°C)
Flash Point	119°F (49°C)	113°F (45°C)	126°F (52°C)	139°F (60°C)
Evaporation Rate	Not available	Not available	Not available	Not available
Flammability	Not available	Not available	Not available	Not available
Upper / lower Flammability or Explosive Limits	Not available	Not available	Not available	Not available
VAPOR PRESSURE (psi)	Not available	Not available	Not available	Not available
Vapor Density	Not available	Not available	Not available	Not available
Specific Gravity (ASTM D4052)	0.95	0.93	0.94	0.94
Solubility	Not available	Not available	Not available	Not available
Partition Coefficient; n-octanol / water	Not available	Not available	Not available	Not available
Auto-ignition Temperature	Not available	Not available	Not available	Not available
Decomposition temperature	Not available	Not available	Not available	Not available
Viscosity	Not available	Not available	Not available	Not available
Pour Point	Not available	Not available	Not available	Not available

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: see Incompatible Materials below

CHEMICAL STABILITY: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

POSSIBILITY OF HAZARDOUS REACTION: Hazardous polymerization will not occur.

CONDITIONS TO AVOID: Flames, high energy ignition sources, and elevated temperatures.

INCOMPATIBLE MATERIALS: May react with strong oxidizing agents, such as; chlorates, nitrates, peroxides, etc.; alkalis; lead and lead alloys; reducing agents; brass; copper.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides, products of incomplete combustion and nitrogen oxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE

	INGESTION	INHALATION	SKIN CONTACT	EYE CONTACT	SKIN ABSORPTION
1:400 Treatment Ratio		X	X	X	X
1:500 Treatment Ratio		X	X	X	X
1:1000 Treatment Ratio		X	X	X	X
1:1500 Treatment Ratio		X	X	X	X

SYMPTOMS RELATED TO PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS: Breathing of high vapor concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. The vapor or fumes from this material may cause respiratory irritation. Breathing this material at elevated concentrations causes central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors, or convulsions, loss of consciousness, coma or death.

DELAYED AND IMMEDIATE EFFECTS AND CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE: Repeated skin exposure to a component of this product may cause irritation, even a burn; may cause a more severe response on covered skin, such as under clothing or gloves. Inhalation exposure to a component of this product has caused fetotoxicity in the presence of maternal toxicity in animals.

NUMERICAL MEASURES OF TOXICITY

Note: the information provided below are estimates; testing of the product is not available.

Treatment Ratio	Acute Oral Toxicity (ATE _{mix} estimate)	Acute Dermal Toxicity (ATE _{mix} estimate)	Acute Inhalation (ATE _{mix} estimate)
1:400 Treatment Ratio	Does not meet criteria	Does not meet criteria	5.81 (vapors)
1:500 Treatment Ratio	Does not meet criteria	Does not meet criteria	5.06 (vapors)
1:1,000 Treatment Ratio	Does not meet criteria	Does not meet criteria	4.63 (vapors)
1:1,500 Treatment Ratio	Does not meet criteria	Does not meet criteria	3.77 (vapors)

SENSITIZATION: No information available.

MUTAGENICITY: No information available.

CARCINOGENICITY LISTINGS – the following substances are listed as indicated:

Chemical	List
Cumene	IARC, NTP
Ethylbenzene	IARC
Naphthalene	IARC, NTP

REPRODUCTIVE TOXICITY: No information available.

TERATOGENICITY/EMBRYOTOXICITY: This product contains a component of a complex mixture (Xylenes (1330-20-7)) that has been shown to cause teratogenicity and/or embryotoxicity.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Respiratory tract irritation.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): No information available

ASPIRATION HAZARD: Aspiration hazard identified.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: This material is expected to be toxic to aquatic organisms.

PERSISTENCE AND DEGRADABILITY: No information not available

BIOACCUMULATIVE POTENTIAL: No information not available

MOBILITY IN SOIL: No information not available

OTHER ADVERSE EFFECTS: No information not available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Information: Disposal of unused product may be subject to RCRA hazardous waste regulations (40 CFR Part 261). Disposal of the used product may also be regulated as hazardous waste due to resulting mixture characteristics, mixture components or product use. Such changes to the product may result in different and/or additional hazardous waste codes.

State or local laws may impose additional regulatory requirements regarding disposal. *Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.*

EMPTY CONTAINER WARNING: EMPTY CONTAINERS MAY CONTAIN COMBUSTIBLE VAPORS AND CAN BE DANGEROUS. SEE SECTION 5 FOR FIRE AND EXPLOSION HAZARD DATA. Dispose of empty containers appropriately per local, state and federal regulations.

SECTION 14 - TRANSPORTATION INFORMATION
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The following part numbers are regulated for transportation as follows:

3016-09 3025-08 3025-12 3080-06	DOT (Domestic Ground): Not Regulated
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates) 3, III, (49°C cc) LTD QTY
3012-09 3064-06	DOT (Domestic Ground): Not Regulated
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates) 3, III, (49°C cc) LTD QTY
3855-01 3850-02	DOT (Domestic Ground): Not Regulated
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates) 3, III (60°C cc) MP (2-Ethylhexyl Nitrate)
3860-01	DOT (Domestic Ground): NA 1993 Combustible liquid, n.o.s. (Petroleum Distillates) Comb liq, III MP (2-Ethylhexyl Nitrate)
	IMDG (Ocean Transport): UN 1993 FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates) 3, III (60°C cc) MP (2-Ethylhexyl Nitrate)
3100 3101 3800	DOT (Domestic Ground): NA 1993 Combustible liquid, n.o.s. (Petroleum Distillates) Comb liq, III MP (2-Ethylhexyl Nitrate), RQ (Naphthalene)
	IMDG (Ocean Transport): Not offered

All part numbers not recommended for transport by air.

SECTION 15 - REGULATORY INFORMATION

§14(a) Consumer Product Safety Act General Certificate of Conformity

Power Service Products, Inc. certifies that this product meets the statutory and regulatory requirements of the US Consumer Products Safety Act, the Federal Hazardous Substances Act, and the Poison Prevention Packaging Act of 1970, as applicable. The Power Service products are manufactured in the United States in Weatherford, Texas, unless otherwise indicated on the product label. The product manufacture lot code is stamped on the product container. This Certification is based upon a reasonable testing program conducted by Power Service Products, Inc. which includes a quality control program incorporating, as necessary, confirmation of compliance by component suppliers. Third-party testing is not required to certify compliance. Further details may be obtained by contacting the Power Service Products, Inc. EHS Manager at 1-800-643-9089.

Contents of this SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200

TSCA STATUS: All chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.

EPA SARA TITLE III CHEMICAL LISTINGS:

Section 302 Extremely Hazardous Substances: None

Sections 311/ 312 Hazard Class:

Acute Health Effects: Yes Sudden Release of Pressure Hazard: No
Chronic Health Effects: Yes Reactivity Hazard: No
Fire Hazard: Yes

NFPA (NATIONAL FIRE PROTECTION ASSOCIATION) RATING:

HEALTH: 2
FIRE: 2
REACTIVITY: 0

Section 313:

Specific chemical information is being withheld as a Trade Secret. The following chemicals subject to the reporting requirements of EPCRA Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (40 CFR Part 372) may be present in this product at a concentration that does not exceed the specified upper weight percentage.

Treatment Ratio	CAS Number	Chemical Name	Max %
1:400 Treatment Ratio	100-41-4	Ethylbenzene	10.0
	95-63-6	1,2,4-trimethybenzene	1.5
	1330-20-7	xylene, mixed isomers	2.5
	91-20-3	Naphthalene	0.5
1:500 Treatment Ratio	100-41-4	Ethylbenzene	10.0
	95-63-6	1,2,4-trimethybenzene	1.5

Treatment Ratio	CAS Number	Chemical Name	Max %
	1330-20-7	xylene, mixed isomers	2.5
	91-20-3	Naphthalene	0.5
1:1,000 Treatment Ratio	100-41-4	Ethylbenzene	6.0
	95-63-6	1,2,4-trimethybenzene	1.5
	1330-20-7	xylene, mixed isomers	1.5
	91-20-3	Naphthalene	1.0
1:1,500 Treatment Ratio	100-41-4	Ethylbenzene	1.5
	95-63-6	1,2,4-trimethybenzene	1.5
	1330-20-7	xylene, mixed isomers	0.5
	91-20-3	Naphthalene	1.5

State or local laws may impose additional regulatory requirements for components of this material. It is the responsibility solely of the Employer to maintain compliance with State and Local reporting.

This product contains a chemical known to the state of California to cause cancer and/or birth defects or other reproductive harm: ethylbenzene, toluene, cumene, naphthalene.

SECTION 16 – OTHER INFORMATION

DATE OF PREPARATION / REVISION: February 25, 2021

NOTE regarding product labeling: The OSHA Hazard Communication Standard applies to hazardous chemicals known to be present in the workplace. However, the labeling and Safety Data Sheet requirements do not apply to consumer products when they are used in the workplace for the purposes intended by the manufacturer and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the intended purpose. Power Service Products intends for product packaged in 1 gallon or smaller containers to be used by consumers and has labeled those containers as required under the Consumer Product Safety Commission regulations. Power Service Products intends for product packaged in containers larger than 1 gallon to be used in the workplace and has labeled those products as required by the OSHA Hazard Communication Standard. The Consumer Product Safety Commission and OSHA Hazard Communication Standard labeling requirements are different and variations between the consumer and industrial labels may occur. It is the employer's responsibility to purchase the appropriate product for use in the workplace.

The information contained herein is offered in good faith and is believed to be accurate based on the data available to us as of the date of SDS preparation. The information in this document applies to this specific product as supplied. It may not be appropriate for this product if the product is used in combination with other materials. The information in this document is not intended to constitute product performance information. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product. No statement shall be construed as an endorsement of any product or process. The recommended industrial hygiene and safe handling procedures are believed to be valid in the context of the intended use as described in product labeling. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. You are urged

to obtain material safety data sheets for all products you buy, process, use or distribute, and are encouraged to advise those who may come in contact with such products of the information contained therein. Regulatory requirements are subject to change and may differ between locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. No warranty or guarantee is expressed or implied with respect to this product, the accuracy and sufficiency of the data or recommendations herein, or the results to be obtained from the use of this product. IN NO EVENT SHALL POWER SERVICE PRODUCTS, INC. BE LIABLE FOR ANY LOSS, CLAIM, DAMAGE OR LIABILITY OF ANY KIND, WHICH MAY ARISE FROM OR IN CONNECTION WITH THE INFORMATION CONTAINED IN THIS DOCUMENT OR FROM THE USE, HANDLING OR STORAGE OF THE PRODUCT BY THE BUYER/USER, WHETHER DIRECT, INDIRECT, OR CONSEQUENTIAL, OR FOR ANY CLAIM BY ANY THIRD PARTY, BEYOND THE PURCHASE PRICE OR REPLACEMENT OF THE PRODUCT IN CONNECTION WITH WHICH SUCH LOSS, CLAIM, DAMAGE OR LIABILITY AROSE.

THE FOREGOING LIMITATIONS APPLY REGARDLESS OF THE CAUSES OR CIRCUMSTANCES GIVING RISE TO SUCH LOSS, CLAIM, DAMAGE OR LIABILITY, EVEN IF SUCH LOSS, CLAIM, DAMAGE, OR LIABILITY IS BASED ON NEGLIGENCE OR OTHER TORTS OR BREACH OF CONTRACT.

SAFETY DATA SHEET

1413

Section 1. Identification

Product name : NAPA® Dry Graphite Film Lubricant

Product code : 1413

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Manufacturer : Manufactured for:
Automotive Redistribution Center
c/o Balkamp, Inc.
Corporate Office:
Indianapolis, IN 46241

Emergency telephone number of the company : (800) 535-5053

Product Information Telephone Number : Not available.

Regulatory Information Telephone Number : (216) 566-2902

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
TOXIC TO REPRODUCTION (Fertility) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation and Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 42.1%

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

Hazard statements	: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. Causes skin irritation. Suspected of damaging fertility. May be fatal if swallowed and enters airways. May cause respiratory irritation. May cause drowsiness and dizziness. May cause damage to organs through prolonged or repeated exposure.
<u>Precautionary statements</u>	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container: Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling.
Response	: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. Please refer to the SDS for additional information. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Hexane	27.3	110-54-3
Propane	17.9	74-98-6
Butane	17.1	106-97-8
2-Methylpentane	12.6	107-83-5
2-Propanol	10.2	67-63-0
3-Methylpentane	4.7	96-14-0
2,3-Dimethylbutane	4.0	79-29-8
Cyclohexane	1.6	110-82-7
2,2-Dimethylbutane	1.4	75-83-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

Section 4. First aid measures

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Section 7. Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Hexane	ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 50 ppm 8 hours. NIOSH REL (United States, 10/2013). TWA: 50 ppm 10 hours. TWA: 180 mg/m ³ 10 hours. OSHA PEL (United States, 2/2013). TWA: 500 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours.
Propane	NIOSH REL (United States, 10/2013). TWA: 1000 ppm 10 hours. TWA: 1800 mg/m ³ 10 hours. OSHA PEL (United States, 2/2013). TWA: 1000 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours.
Butane	NIOSH REL (United States, 10/2013). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 4/2014). STEL: 1000 ppm 15 minutes.
2-Methylpentane	ACGIH TLV (United States, 4/2014). TWA: 500 ppm 8 hours. TWA: 1760 mg/m ³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 3500 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours. TWA: 350 mg/m ³ 10 hours. CEIL: 510 ppm 15 minutes. CEIL: 1800 mg/m ³ 15 minutes.
2-Propanol	ACGIH TLV (United States, 4/2014). TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes. NIOSH REL (United States, 10/2013). TWA: 400 ppm 10 hours. TWA: 980 mg/m ³ 10 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m ³ 15 minutes. OSHA PEL (United States, 2/2013). TWA: 400 ppm 8 hours. TWA: 980 mg/m ³ 8 hours.
3-Methylpentane	ACGIH TLV (United States, 4/2014). TWA: 500 ppm 8 hours.

Section 8. Exposure controls/personal protection

2,3-Dimethylbutane	<p>TWA: 1760 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 3500 mg/m³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 510 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes. ACGIH TLV (United States, 4/2014). TWA: 500 ppm 8 hours. TWA: 1760 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 3500 mg/m³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 510 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes. ACGIH TLV (United States, 4/2014).</p>
Cyclohexane	<p>TWA: 100 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 510 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes. ACGIH TLV (United States, 4/2014). TWA: 100 ppm 8 hours. NIOSH REL (United States, 10/2013). TWA: 300 ppm 10 hours. TWA: 1050 mg/m³ 10 hours. OSHA PEL (United States, 2/2013). TWA: 300 ppm 8 hours. TWA: 1050 mg/m³ 8 hours.</p>
2,2-Dimethylbutane	<p>ACGIH TLV (United States, 4/2014). TWA: 500 ppm 8 hours. TWA: 1760 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 3500 mg/m³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 510 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes.</p>

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 9.1 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1%
Upper: 12.7%
- Vapor pressure** : 13.5 kPa (101.325 mm Hg) [at 20°C]
- Vapor density** : 1.55 [Air = 1]
- Relative density** : 0.63
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (room temperature): <0.07 cm²/s (<7 cSt)
Kinematic (40°C (104°F)): <0.07 cm²/s (<7 cSt)

Aerosol product

- Type of aerosol** : Spray
- Heat of combustion** : 0.00004155 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Hexane	LC50 Inhalation Gas. LD50 Oral	Rat Rat	48000 ppm 15840 mg/kg	4 hours -
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m ³	4 hours
2-Propanol	LD50 Dermal LD50 Oral	Rabbit Rat	12800 mg/kg 5000 mg/kg	- -
Cyclohexane	LD50 Oral	Rat	6240 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hexane	Eyes - Mild irritant	Rabbit	-	10 milligrams	-
2-Propanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/Ingredient name	OSHA	IARC	NTP
2-Propanol	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Hexane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Propane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Butane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
2-Methylpentane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
2-Propanol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
3-Methylpentane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
2,3-Dimethylbutane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Cyclohexane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
2,2-Dimethylbutane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Hexane	Category 2	Not determined	Not determined
Propane	Category 2	Not determined	Not determined
Butane	Category 2	Not determined	Not determined
2-Methylpentane	Category 2	Not determined	Not determined
2-Propanol	Category 2	Not determined	Not determined
3-Methylpentane	Category 2	Not determined	Not determined
2,3-Dimethylbutane	Category 2	Not determined	Not determined
Cyclohexane	Category 2	Not determined	Not determined
2,2-Dimethylbutane	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
Hexane	ASPIRATION HAZARD - Category 1
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
2-Methylpentane	ASPIRATION HAZARD - Category 1
3-Methylpentane	ASPIRATION HAZARD - Category 1
2,3-Dimethylbutane	ASPIRATION HAZARD - Category 1
Cyclohexane	ASPIRATION HAZARD - Category 1
2,2-Dimethylbutane	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 - pain or irritation
 - watering
 - redness
- Inhalation** : Adverse symptoms may include the following:
 - respiratory tract irritation
 - coughing
 - nausea or vomiting
 - headache
 - drowsiness/fatigue
 - dizziness/vertigo
 - unconsciousness
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 - irritation
 - redness
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 - nausea or vomiting
 - reduced fetal weight
 - increase in fetal deaths
 - skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	28358.8 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Hexane	Acute LC50 2500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
2-Propanol	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
Cyclohexane	Acute LC50 4530 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Propanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Hexane	-	501.187	high
Cyclohexane	-	167	low

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	<u>Special provisions</u> LIMITED QUANTITY	<u>Special provisions</u> LIMITED QUANTITY	<u>Special provisions</u> (ERG#126)	<u>Special provisions</u> LIMITED QUANTITY	<u>Emergency schedules (EmS)</u> LIMITED QUANTITY, F-D, S-U

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

State regulations

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	4
Physical hazards	0

Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.



SAFETY DATA SHEET

1. Identification

Product identifier Jump Start® Starting Fluid

Other means of identification
Product Code No. 05671 (Item# 1003843)

Recommended use Starting fluid

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information
Manufactured or sold by:

Company name CRC Industries, Inc.
Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300
Technical Assistance 800-521-3168
Customer Service 800-272-4620
24-Hour Emergency (CHEMTREC) 800-424-9300 (US)
703-527-3887 (International)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Gases under pressure Compressed gas

Health hazards Skin corrosion/irritation Category 2
Carcinogenicity Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 3

OSHA defined hazards Not classified.

Label elements



Signal word

Danger

Hazard statement

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If exposed or concerned: Get medical advice/attention.

Storage

Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
heptane, branched, cyclic and linear		426260-76-6	70 - 80
diethyl ether		60-29-7	10 - 20
carbon dioxide		124-38-9	5 - 10
ethanol		64-17-5	< 1.5
chloroethane		75-00-3	< 1
distillates (petroleum), hydrotreated light		64742-47-8	< 1

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m ³
chloroethane (CAS 75-00-3)	PEL	5000 ppm 2600 mg/m ³
diethyl ether (CAS 60-29-7)	PEL	1000 ppm 1200 mg/m ³
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	PEL	400 ppm 400 mg/m ³
ethanol (CAS 64-17-5)	PEL	100 ppm 1900 mg/m ³ 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
chloroethane (CAS 75-00-3)	TWA	5000 ppm
	TWA	100 ppm
diethyl ether (CAS 60-29-7)	STEL	500 ppm
	TWA	400 ppm
ethanol (CAS 64-17-5)	STEL	1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	30000 ppm 9000 mg/m3
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	5000 ppm 100 mg/m3
	TWA	1900 mg/m3 1000 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines**US - California OELs: Skin designation**

chloroethane (CAS 75-00-3) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

chloroethane (CAS 75-00-3) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Butyl rubber.

Other Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state Liquid.

Form Aerosol.

Color Colorless.

Odor Hydrocarbon-like.

Odor threshold Not available.

pH Not available.

Melting point/freezing point -189.9 °F (-123.3 °C) estimated

Initial boiling point and boiling range	94.3 °F (34.6 °C) estimated
Flash point	< 20 °F (< -6.7 °C) Tag Closed Cup
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.5 % estimated
Flammability limit - upper (%)	36.5 % estimated
Vapor pressure	5024.7 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.7
Solubility (water)	Slightly soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	320 °F (160 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	< 20 cSt (104 °F (40 °C))
Percent volatile	100 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Aluminum.
Hazardous decomposition products	Carbon oxides. Acrid smoke.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
diethyl ether (CAS 60-29-7)		
Acute		
Inhalation		
LC50	Rat	32000 ppm, 4 Hours
Oral		
LD50	Rat	3230 - 3920 mg/kg

Components	Species	Test Results
distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
ethanol (CAS 64-17-5)		
Acute		
Dermal		
LD50	Rabbit	20 g/kg
Inhalation		
LC50	Rat	8000 mg/l, 4 hours
Oral		
LD50	Rat	6.2 g/kg
heptane, branched, cyclic and linear (CAS 426260-76-6)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 60 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Suspected of causing cancer.
IARC Monographs. Overall Evaluation of Carcinogenicity	
chloroethane (CAS 75-00-3)	3 Not classifiable as to carcinogenicity to humans.
diethyl ether (CAS 60-29-7)	3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	Toxic to aquatic life. Harmful to aquatic life with long lasting effects.	
Components	Species	Test Results
diethyl ether (CAS 60-29-7)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 2560 mg/l, 96 hours

Components	Species	Test Results
distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna) 1.1 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 3 mg/l, 96 hours
ethanol (CAS 64-17-5)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna) 7.7 - 11.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours
heptane, branched, cyclic and linear (CAS 426260-76-6)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna) 1.5 mg/l, 48 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

chloroethane	1.43
diethyl ether	0.89
ethanol	-0.31

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products	If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-

Packing group Not applicable.
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG

UN number UN1950
UN proper shipping name AEROSOLS, Limited Quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group Not applicable.
Environmental hazards
Marine pollutant No.
EmS Not available.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

chloroethane (CAS 75-00-3)

CERCLA Hazardous Substance List (40 CFR 302.4)

chloroethane (CAS 75-00-3) Listed.
 diethyl ether (CAS 60-29-7) Listed.

CERCLA Hazardous Substances: Reportable quantity

chloroethane (CAS 75-00-3) 100 LBS
 diethyl ether (CAS 60-29-7) 100 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

chloroethane (CAS 75-00-3)
 diethyl ether (CAS 60-29-7)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

diethyl ether (CAS 60-29-7) 6584

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

diethyl ether (CAS 60-29-7) 35 %WV

DEA Exempt Chemical Mixtures Code Number

diethyl ether (CAS 60-29-7) 6584

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

ethanol (CAS 64-17-5) Low priority

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Immediate Hazard - Yes
Hazard categories Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - Yes
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

chloroethane (CAS 75-00-3)

US. New Jersey Worker and Community Right-to-Know Act

carbon dioxide (CAS 124-38-9)
 chloroethane (CAS 75-00-3)
 diethyl ether (CAS 60-29-7)
 ethanol (CAS 64-17-5)

US. Massachusetts RTK - Substance List

carbon dioxide (CAS 124-38-9)
 chloroethane (CAS 75-00-3)
 diethyl ether (CAS 60-29-7)
 ethanol (CAS 64-17-5)

US. Pennsylvania Worker and Community Right-to-Know Law

carbon dioxide (CAS 124-38-9)
 chloroethane (CAS 75-00-3)
 diethyl ether (CAS 60-29-7)
 distillates (petroleum), hydrotreated light (CAS 64742-47-8)
 ethanol (CAS 64-17-5)

US. Rhode Island RTK

carbon dioxide (CAS 124-38-9)
 chloroethane (CAS 75-00-3)
 diethyl ether (CAS 60-29-7)
 ethanol (CAS 64-17-5)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

chloroethane (CAS 75-00-3) Listed: July 1, 1990

US - California Proposition 65 - CRT: Listed date/Developmental toxin

toluene (CAS 108-88-3) Listed: January 1, 1991

Volatile organic compounds (VOC) regulations**EPA**

VOC content (40 CFR 51.100(s)) 94.5 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products Not regulated

VOC content (CA) 94.5 %

VOC content (OTC) 94.5 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	08-29-2017
Prepared by	Allison Yoon
Version #	01
Further information	Not available.
HMIS® ratings	Health: 1* Flammability: 4 Physical hazard: 0 Personal protection: B
NFPA ratings	Health: 1 Flammability: 4 Instability: 0

NFPA ratings



Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision Information

This document has undergone significant changes and should be reviewed in its entirety.

SAFETY DATA SHEET.

Issuing date 10-Nov-2015

Revision Date 11-Nov-2015

Version 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name 6505 5TH WHEEL LUBE-12PK

Recommended use of the chemical and restrictions on use

Product code F00278

Product Type Extremely flammable aerosol
Synonyms None

Supplier's details

Recommended Use Fifth Wheel Lubricant.
Uses advised against No information available

<u>Manufactured For:</u> Imperial Supplies LLC 789 Armed Forces Drive P.O. Box 11008 Green Bay, WI 53407-1008	<u>Manufacturer</u> American Jetway Corporation 34136 Myrtle Street Wayne, MI 48184-0126
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Emergency telephone number
Chemical Emergency Phone Number Chemtrec 1-800-262-8200 ID 1195
Company Emergency Phone Number 734-721-5930

2. HAZARDS IDENTIFICATION

Classification


Skin corrosion/irritation	Category 2
Carcinogenicity	Category 2
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable aerosols	Category 1
Gases under pressure	Compressed Gas

GHS Label elements, including precautionary statements

Emergency Overview

DANGER

Hazard Statements
 Causes skin irritation
 Suspected of causing cancer
 Suspected of damaging fertility or the unborn child
 May cause respiratory irritation. May cause drowsiness or dizziness
 May cause damage to organs (central nervous system, eyes, respiratory system, and skin) through prolonged or repeated exposure.
 May be fatal if swallowed and enters airways
 Extremely flammable aerosol
 Contains gas under pressure; may explode if heated



Appearance opaque **Physical state** Aerosol **Odor** Solvent

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Do not spray on an open flame or other ignition source
 Pressurized container: Do not pierce or burn, even after use

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 Specific treatment (see first aid on this label)
 IF ON SKIN: Wash with plenty of soap and water.
 Take off contaminated clothing and wash before reuse
 If skin irritation occurs: Get medical advice/attention
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other Information

• Toxic to aquatic life with long lasting effects

8E-06% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS
--

CAS # 64742-49-0, COMMERCIAL HEXANES, MAY BE SUBSTITUTED FOR CAS #110-54-3.

Chemical Name	CAS-No	Weight %*
PETROLEUM BITUMEN	8052-42-4	50-60
PROPANE/ISOBUTANE/N-BUTANE	68476-86-8	10-20
PETROLEUM DISTILLATES	64742-47-8	5-15
HEXANE	64742-49-0	5-15
NAPHTHENIC OIL, SEVERLY HYDROT	64742-52-5	1-10

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Artificial respiration and/or oxygen may be necessary. If breathing has stopped, contact emergency medical services immediately.
Ingestion	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

Main Symptoms Causes skin and eye irritation. Irritating to respiratory system. May cause drowsiness or dizziness. Harmful or fatal if swallowed and enters airways.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Specific hazards arising from the chemical

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions No special environmental precautions required. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with eyes and skin. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children. Store locked up.

Incompatible products Strong acids, alkalis, or oxidizing agents.

Aerosol Level 3

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
PETROLEUM BITUMEN 8052-42-4	TWA: 0.5 mg/m ³ benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m ³ fume 15 min
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	74-98-6: TWA: 1000 ppm 106-97-8: STEL: 1000 ppm 75-28-5: STEL: 1000 ppm	74-98-6:TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³ 106-97-8: (vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	74-98-6:IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³ 106-97-8:TWA: 800 ppm TWA: 1900 mg/m ³ 75-28-5:TWA: 800 ppm TWA: 1900 mg/m ³
HEXANE 64742-49-0	TWA: 50 ppm Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 500 ppm TWA: 1800 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 180 mg/m ³	IDLH: 1100 ppm TWA: 50 ppm TWA: 180 mg/m ³

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

Exposure controls

Engineering Measures Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and body protection Chemical resistant apron. Protective gloves.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state Aerosol
Appearance opaque
Color dark brown
Odor Solvent
Odor Threshold

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH	No information available	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash Point	-97 °C / -142 °F	Based on propellant
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
upper flammability limit	No information available	
lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	0.821	

Water solubility	Practically insoluble	
Partition coefficient: n-octanol/water		
Autoignition temperature	No information available	Not applicable
Decomposition temperature		
Viscosity	No information available	
Explosive properties		

Other information

VOC Content(%) 39.72

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong acids, alkalis, or oxidizing agents.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Vapors may irritate throat and respiratory system. May cause drowsiness and dizziness based on components. May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Eye contact	Avoid contact with eyes and skin.
Skin contact	Irritating to skin. Repeated exposure may cause skin dryness or cracking. Prolonged skin contact may defat the skin and produce dermatitis. Avoid contact with skin.
Ingestion	May be harmful if swallowed. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
PETROLEUM BITUMEN 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
PETROLEUM DISTILLATES 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
HEXANE 64742-49-0	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 73680 ppm (Rat) 4 h

Information on toxicological effects

Symptoms Causes eye and skin irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Harmful if swallowed and enters airways.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Irritation Irritating to respiratory system and skin.
Sensitization None known.
Germ Cell Mutagenicity None known.
Carcinogenicity The table below indicates whether each agency has evaluated a listed ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
PETROLEUM BITUMEN 8052-42-4	-	Group 2B	-	-

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive toxicity Product is or contains a chemical which is a known or suspected reproductive hazard.
Specific target organ systemic toxicity (single exposure) May cause respiratory irritation. May cause drowsiness and dizziness.
Specific target organ systemic toxicity (repeated exposure) May cause damage to organs through prolonged or repeated exposure.
Target Organ Effects Eyes, Respiratory system, Skin, Central nervous system.
Aspiration hazard May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 8E-06% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 6371 mg/kg

ATEmix (dermal) 2674 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	-	-	-	-
PETROLEUM DISTILLATES 64742-47-8	-	45 mg/L LC50 Pimephales promelas 96h flow-through 2.2 mg/L LC50 Lepomis macrochirus 96h static 2.4 mg/L LC50 Oncorhynchus mykiss 96h static	-	-
NAPHTHENIC OIL, SEVERLY HYDROT 64742-52-5	-	5000 mg/L LC50 Oncorhynchus mykiss 96h	-	1000 mg/L EC50 Daphnia magna 48h

Persistence and degradability

Bioaccumulation

Chemical Name	log Pow
PETROLEUM BITUMEN 8052-42-4	>6
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	<=2.8

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.

Contaminated packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY

IATA UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

IMDG UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
PETROLEUM BITUMEN	X	X	X	Not listed	X	X	X	X
PROPANE/ISOBUTANE/N-BUTANE	X	X	X	Not listed	X	X	X	X
PETROLEUM DISTILLATES	X	X	X	Not listed	X	X	X	X
HEXANE	X	X	X	Not listed	X	X	X	X
NAPHTHENIC OIL, SEVERLY HYDROT	X	X	X	Not listed	X	X	X	X

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- CHINA - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any known Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
PETROLEUM BITUMEN 8052-42-4	X	X	X

EPA Pesticide Registration Number Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 4	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 2	Flammability 4	Physical Hazard 1	Personal protection B

Prepared By American Jetway
34136 Myrtle Street
Wayne, MI 48184

Issuing date Tel.734-721-5930
10-Nov-2015
Revision Date 11-Nov-2015
Revision Note

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet



SAFETY DATA SHEET

Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

1. IDENTIFICATION

Product Name	Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)
Other Names	ABC, Ammonium Phosphate, Monoammonium Phosphate, Tri-Class
Recommended use of the chemical and restrictions on use	
Identified uses	Fire Extinguishing Agent
Restrictions on use	Consult applicable fire protection codes
Company Identification	Badger Fire Protection 8767 Seminole Trail, Suite 202 Ruckersville, VA 22968 USA
Customer Information Number	(434)-964-3200
Emergency Telephone Number	
CHEMTREC Number	(800) 424-9300 (703) 527-3887 (International)
Issue Date	December 10, 2019
Supersedes Date	October 11, 2019

Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200, the Canadian Hazardous Products Regulations (HPR) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARD IDENTIFICATION

This SDS covers the product listed above as sold in pressurized and non-pressurized containers. GHS classifications for both forms are listed below.

GHS Classification – Pressurized

Hazard Classification

Gas under pressure – Compressed gas

Label Elements

Hazard Symbols



Signal Word: Warning

Hazard Statements

Contents under pressure; may explode if heated.

Precautionary Statements

Prevention

None

Response

None



SAFETY DATA SHEET

Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

2. HAZARD IDENTIFICATION

Storage

Protect from sunlight.
Store in well-ventilated place.

Disposal

None

GHS Classification: Non - pressurized**Hazard Classification**

This product is classified as not hazardous in accordance with the Globally Harmonized System of Classification and Labelling (GHS).

Label Elements

Hazard Symbols
None

Signal Word: None

Hazard Statements

None

Precautionary Statements**Prevention**

None

Response

None

Storage

None

Disposal

None

Other Hazards

Mica may contain small quantities of quartz (crystalline silica) as an impurity. Prolonged exposure to respirable crystalline silica dust at concentrations exceeding the occupational exposure limits may increase the risk of developing a disabling lung disease known as silicosis. IARC found limited evidence for pulmonary carcinogenicity of crystalline silica in humans.

Specific Concentration Limits

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity	< 10%
Acute dermal toxicity	< 10%
Acute inhalation toxicity	< 10%
Acute aquatic toxicity	< 10%



SAFETY DATA SHEET

Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration*
Calcium Carbonate	471-34-1	1 – 5%
Clay (Kaolin)	1332-58-7	0.5 – 1.5%
Mica	12001-26-2	0.5 – 1.5%
Non-hazardous ingredients		
Monoammonium Phosphate	7722-76-1	80 – 100%

Note: Pressurized product uses nitrogen or compressed air as the expellant.

*Exact concentration withheld as trade secret.

4. FIRST-AID MEASURES

Description of necessary first-aid measures

Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash skin thoroughly with soap and water. Obtain medical attention if irritation persists.

Ingestion

Dilute by drinking large quantities of water and obtain medical attention.

Inhalation

Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.

Most important symptoms/effects, acute and delayed

Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

Notes to Physicians

Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Suitable Extinguishing Media

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a fire. Use extinguishing agent appropriate to other materials involved. Keep pressurized containers and surroundings cool with water spray as they may rupture or burst in the heat of a fire.

Specific hazards arising from the chemical

Pressurized containers may explode in heat of fire.

Special Protective Actions for Fire-Fighters

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.



SAFETY DATA SHEET

Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing. Prevent skin and eye contact. Remove leaking container to a safe place. Ventilate the area.

Environmental Precautions

Prevent large quantities of the material from entering drains or watercourses.

Methods and materials for containment and cleaning up

Sweep up or vacuum and transfer into suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear appropriate protective clothing. Prevent skin and eye contact.

Conditions for safe storage

Pressurized containers should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll pressurized containers. Do not drop pressurized containers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the pressurized or plastic container. Store pressurized and plastic containers away from high heat sources. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Calcium Carbonate

OSHA PEL: 15 mg/m³ TWA, total dust
5 mg/m³ TWA, respirable fraction

Mica

ACGIH TLV: 3 mg/m³ TWA, measured as respirable fraction of the aerosol.
OSHA PEL: 20 mppcf, <1% crystalline silica

Kaolin

ACGIH TLV: 2 mg/m³ TWA, for particulate matter containing no asbestos and <1% Crystalline silica
OSHA PEL: 15 mg/m³ TWA, total dust
5 mg/m³ TWA, respirable fraction

Particulates not otherwise classified /regulated

OSHA PEL: 50 mppcf or 15 mg/m³ TWA, total dust
15 mppcf or 5 mg/m³ TWA, respirable fraction

Appropriate engineering controls

Use with adequate ventilation. If this product is used in a pressurized system, there should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.

Individual protection measures

Respiratory Protection

Not normally required. Use dust mask where dustiness is prevalent, or TLV is exceeded. In oxygen deficient atmospheres, use a self-contained breathing apparatus, as an air purifying respirator will not provide protection.



SAFETY DATA SHEET
Kidde 90 Multi-Purpose ABC Dry Chemical
(Fire Extinguishing Agent, Pressurized and
Non-pressurized)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Skin Protection
 Gloves
Eye/Face Protection
 Chemical goggles or safety glasses with side shields.
Body Protection
 Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Non- Pressurized

Appearance

	Physical State	Solid (powder)
	Color	Pale Yellow
Odor		Odorless
Odor Threshold		No data available
pH		Not applicable
Specific Gravity		No data available
Boiling Range/Point (°C/F)		Not applicable
Melting Point (°C/F)		No data available
Flash Point (PMCC) (°C/F)		Not flammable
Vapor Pressure		No data available
Evaporation Rate (BuAc=1)		No data available
Solubility in Water		No data available
Vapor Density (Air = 1)		Not applicable
VOC (g/l)		None
VOC (%)		None
Partition coefficient (n-octanol/water)		No data available
Viscosity		No data available
Auto-ignition Temperature		No data available
Decomposition Temperature		No data available
Upper explosive limit		No data available
Lower explosive limit		No data available
Flammability (solid, gas)		No data available

Expellant - Nitrogen

Appearance

	Physical State	Compressed gas
	Color	Colorless
Odor		None
Odor Threshold		No data available
pH		Not applicable
Specific Gravity		0.075 lb/ft ³ @70°F as vapor
Boiling Range/Point (°C/F)		-196°C/-321°F
Melting Point (°C/F)		-210°C/-346°F
Flash Point (PMCC) (°C/F)		Not flammable
Vapor Pressure		No data available
Evaporation Rate (BuAc=1)		Not applicable
Solubility in Water		0.02 g/L
Vapor Density (Air = 1)		0.97
VOC (g/l)		Not applicable



SAFETY DATA SHEET

Kidde 90 Multi-Purpose ABC Dry Chemical
(Fire Extinguishing Agent, Pressurized and
Non-pressurized)

9. PHYSICAL AND CHEMICAL PROPERTIES

VOC (%)	Not applicable
Partition coefficient (n-octanol/water)	No data available
Viscosity	Not applicable
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Upper explosive limit	Not explosive
Lower explosive limit	Not explosive
Flammability (solid, gas)	Not flammable

10. STABILITY AND REACTIVITY

Reactivity

Pressurized containers may rupture or explode if exposed to heat.

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Exposure to direct sunlight - contact with incompatible materials

Incompatible Materials

Strong oxidizing agents - strong acids - sodium hypochlorite

Hazardous Decomposition Products

Oxides of carbon - ammonia - oxides of phosphorus - nitrogen oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Mica:

Oral LD50 (Rat) >2000 mg/kg

Kaolin (clay):

Oral LD50 (Rat) >5000 mg/kg

Dermal LD50 (Rabbit) >5000mg/kg

Nitrogen

Simple asphyxiant

Specific Target Organ Toxicity (STOT) – single exposure

Nitrogen: Exposure to nitrogen gas at high concentrations can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations can cause dizziness, shortness of breath, unconsciousness or asphyxiation.

Specific Target Organ Toxicity (STOT) – repeat exposure

No relevant studies identified.



SAFETY DATA SHEET

Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

11. TOXICOLOGICAL INFORMATION

Serious Eye damage/Irritation

Mica: Not irritating (rabbit)

Skin Corrosion/Irritation

Mica: Not irritating (rabbit)

Respiratory or Skin Sensitization

No relevant studies identified.

Carcinogenicity

Mica may contain small quantities of quartz (crystalline silica) as an impurity. Prolonged exposure to respirable crystalline silica dust at concentrations exceeding the occupational exposure limits may increase the risk of developing a disabling lung disease known as silicosis. IARC has classified Silica Dust, Crystalline, in the form of quartz or cristobalite as 1 (carcinogenic to humans).

Germ Cell Mutagenicity

No relevant studies identified.

Reproductive Toxicity

No relevant studies identified.

Aspiration Hazard

Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No relevant studies identified.

Mobility in soil

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bioaccumulative Potential

No relevant studies identified.

Other adverse effects

No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of container in accordance with all applicable local and national regulations.



SAFETY DATA SHEET

Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

14. TRANSPORT INFORMATION

Safety Data Sheet information is intended to address a specific material and not various forms or states of containment.

Special Precautions for Shipping:

Individuals must be certified as Hazardous Material Shipper for all transportation modes. Pressurized Fire Extinguishers are considered a hazardous material by the US Department of Transportation and Transport Canada.

DOT CFR 172.101 Data	Fire extinguishers, 2.2, UN1044
UN Proper Shipping Name	Fire extinguishers
UN Class	(2.2)
UN Number	UN1044
UN Packaging Group	Not applicable
Classification for AIR Transportation (IATA)	Consult current IATA Regulations prior to shipping by air.
Classification for Water Transport IMDG	Consult current IMDG Regulations prior to shipping by water.

When shipping via ground, portable fire extinguishers pressurized to less than 241 psi and of less than 1100 cubic inches in size meet the requirements of "Limited Quantity" as referenced in 49 CFR 173.309 (2010). There is no limited quantity designation for fire extinguishers when shipped by air or water.

This section is believed to be accurate at the time of preparation. It is not intended to be a complete statement or summary of the applicable laws, rules, or hazardous material regulations, and is subject to change. Users have the responsibility to confirm compliance with all laws, rules, and hazardous material regulations in effect at the time of shipping.

15. REGULATORY INFORMATION

United States TSCA Inventory

This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance Inventory.

Canada DSL Inventory

All ingredients in this product are listed on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL) or are exempt from listing.

SARA Title III Sect. 311/312 Categorization: Pressurized

Gas under pressure

SARA Title III Sect. 311/312 Categorization: Non-pressurized

None

SARA Title III Sect. 313

This product does not contain any chemicals that are listed in Section 313 at or above de minimis concentrations.



SAFETY DATA SHEET

Kidde 90 Multi-Purpose ABC Dry Chemical (Fire Extinguishing Agent, Pressurized and Non-pressurized)

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Health - 1
NFPA Code for Flammability - 0
NFPA Code for Reactivity - 0
NFPA Code for Special Hazards - None

Legend

ACGIH: American Conference of Governmental Industrial Hygienists
CAS#: Chemical Abstracts Service Number
EC50: Effect Concentration 50%
IARC: International Agency for Research on Cancer
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
N/A: Denotes no applicable information found or available
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act

Revision Date: December 10, 2019
Replaces: October 11, 2019
Changes made: Update to Sections 3 and 9.

Information Source and References

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

Prepared By: EnviroNet LLC.

The information and recommendations presented in this SDS are based on sources believed to be accurate. Badger Fire Protection assumes no liability for the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of the material for their particular purposes. In particular, we make **NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED**, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use or disposal of the material is in accordance with applicable Federal, State, and local laws and regulations.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION			
PRODUCT IDENTIFIER	Floor-Dry™, Solid-A-Sorb®, Celatom® MP grades		
CHEMICAL NAME	Diatomaceous Earth, Natural		
CHEMICAL FAMILY	Silica		
MATERIAL USE	Industrial Absorbent		
RESTRICTION ON USE	None Known		
MANUFACTURER	EP Minerals, LLC., 9785 Gateway Dr., Reno, NV 89521		
TELEPHONE NO.	(775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST)		
EMERGENCY TELEPHONE NO.	(775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST)		
SDS DATE OF PREPARATION	January 2, 2018		
SECTION 2: HAZARDS IDENTIFICATION			
OSHA GHS HAZARD CLASSIFICATION	Not classified as hazardous		
HAZARDS NOT OTHERWISE CLASSIFIED	None		
LABEL ELEMENTS	No GHS labeling required		
SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS			
INGREDIENT IDENTIFICATION	APPROXIMATE CONCENTRATION (%)	C.A.S. NUMBERS	EINECS
Diatomaceous Earth, Natural (kieselguhr)	100%	61790-53-2 or 7631-86-9	231-545-4
SECTION 4: FIRST AID MEASURES			
EYE	Flush eyes with generous quantities of water or eye rinse solution. Consult physician if irritation persists.		
SKIN	Use moisture renewing lotions if dryness occurs.		
INGESTION	Drink generous amounts of water to reduce bulk and drying effects.		
INHALATION	Remove to fresh air. Blow nose to evacuate dust.		
Most important symptoms/effects, acute and delayed	Dust may cause abrasive irritation to eyes. Prolonged skin contact may cause dryness. Dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of high concentration of dust may cause lung effects..		
Indication of immediate medical attention and special treatment, if necessary	Immediate medical attention is not normally required. If dust irritates the eyes, seek medical attention.		

MATERIAL NAME	Floor-Dry™, Solid-A-Sorb®, Celatom® MP grades			Page 2 of 4
SECTION 5: FIRE FIGHTING MEASURES				
EXTINGUISHING MEDIA	Not applicable, the material is not combustible.			
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	Not applicable, the material is not combustible.			
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS	Not applicable, the material is not combustible.			
SECTION 6: ACCIDENTAL RELEASE MEASURES				
PERSONAL PRECAUTIONS	If dust is present, use respirator fitted with particulate filter as specified in Section 8. Protect eyes with goggles.			
ENVIRONMENTAL PRECAUTIONS	This material is not a significant environmental concern.			
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP	Vacuum clean spillage, wet sweep or wash away. Avoid creating dust. Place in a container for use or disposal.			
SECTION 7: HANDLING AND STORAGE				
PRECAUTIONS FOR SAFE HANDLING	Minimize dust generation. Avoid contact with eyes. Avoid breathing dust. Repair or dispose of broken bags. Observe all label precautions and warnings.			
CONDITIONS FOR SAFE STORAGE	Store in a dry place to maintain packaging integrity and product quality. Do not store near hydrofluoric acid or strongly basic solutions.			
SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION				
EXPOSURE GUIDELINES:				
Component	OSHA PEL	ACGIH TLV	MSHA PEL	NIOSH REL
Diatomaceous Earth, Natural (kieselguhr)	80 mg/m ³ % SiO ₂ total dust	None Established	5 mg/m ³	6 mg/m ³
ENGINEERING CONTROLS	Use general or local exhaust ventilation to control dust within recommended exposure limits. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation systems.			
PERSONAL PROTECTIVE EQUIPMENT:				
EYE / FACE PROTECTION	Goggles to protect from dust			
SKIN PROTECTION	No special equipment is needed.			
RESPIRATORY PROTECTION	If the exposure limits are exceeded, a NIOSH approved respirator appropriate for the form and concentration of the contaminants should be used. For example, if the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL), use a quarter or half-mask respirator with an N95 dust filter or a single-use dust mask rated N95. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.			
GENERAL HYGIENE	Avoid breathing dust. Avoid contact with eyes. Wash hands after handling and before eating or drinking.			

MATERIAL NAME	Floor-Dry™, Solid-A-Sorb®, Celatom® MP grades	Page 3 of 4
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE, COLOR	Buff to off white granules	ODOR	Odorless
PHYSICAL STATE	Solid	ODOR THRESHOLD	Not applicable
VAPOR PRESSURE	Not applicable	VAPOR DENSITY	Not applicable
BOILING POINT	Not applicable	MELTING POINT	> 1300° C
FLASH POINT	Not applicable	pH (10% SUSPENSION)	7
FLAMMABILITY LIMITS	Not applicable	EVAPORATION RATE	Not applicable
DECOMPOSITION TEMPERATURE	> 1300° C	SPEC. GRAVITY / RELATIVE DENSITY	2.2
AUTOIGNITION TEMPERATURE	Not applicable	PARTITION COEFFICIENT – n-OCTANOL/WATER	Not applicable
FLAMMABILITY (solid/gas)	Not applicable	SOLUBILITY – WATER	< 1%
		VISCOSITY	Not applicable

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	Material is not reactive.
CHEMICAL STABILITY	Material is stable.
POSSIBILITY OF HAZARDOUS REACTIONS	Material is not reactive.
CONDITIONS TO AVOID	Not applicable
INCOMPATIBLE MATERIALS	Products containing silica may react violently with hydrofluoric acid and strongly basic solutions.
HAZARDOUS DECOMPOSITION PRODUCTS	Not applicable

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS	See below and Section 11 for additional information
Likely Routes of Exposure	See below
EYE	May cause irritation (tear formation and redness) if dust gets in eyes.
SKIN	Not absorbed by the skin, but may cause dryness if prolonged exposure.
INGESTION	Ingestion of small to moderate quantities is not considered harmful, but may cause irritation of the mouth, throat and stomach.
INHALATION	Acute inhalation can cause dryness of the nasal passage and lung congestion, coughing and general throat irritation. Chronic inhalation of dust should be avoided.
CHRONIC EFFECTS	Chronic inhalation of dust in excess of the Permissible Exposure Limit (PEL) established by OSHA over a prolonged number of years may cause lung changes.
NTP	Diatomaceous Earth, Natural is not classified as a carcinogen.
IARC	Diatomaceous Earth, Natural is not classifiable as to carcinogenicity in humans (Group 3).
NUMERICAL MEASURES OF TOXICITY	No data available

MATERIAL NAME	Floor-Dry™, Solid-A-Sorb®, Celatom® MP grades	Page 4 of 4
CORROSIVENESS, SENSITIZATION, IRRITANCY	Not applicable	
REPRODUCTIVE TOXICITY	Not available	
TERATOGENICITY, MUTAGENICITY	Not available	
SECTION 12: ECOLOGICAL INFORMATION		
ECOTOXICITY:	Diatomaceous earth products have shown some efficacy as a natural insecticide, but otherwise have no demonstrated toxicity in regards to aquatic or terrestrial life.	
PERSISTENCE AND DEGRADABILITY	Non-biodegradable, inert.	
BIOACCUMULATIVE POTENTIAL	Little potential for bioaccumulation	
MOBILITY IN SOIL	No mobility	
OTHER ADVERSE EFFECTS	None known	
SECTION 13: DISPOSAL CONSIDERATIONS		
WASTE DISPOSAL	If this material as supplied becomes a waste, use solid waste disposal common to landfill type operations or in slurry to sumps. Not considered a hazardous waste under RCRA (40CFR Part 261).	
PACKAGING DISPOSAL	Dispose of in accordance with applicable laws and regulations, typically solid waste disposal common to landfill type operations.	
SECTION 14: TRANSPORT INFORMATION		
BASIC SHIPPING INFORMATION	DOT shipping classification 55 (no restrictions). Technical name is "Diatomaceous Earth".	
ADDITIONAL INFORMATION	No special requirements or placarding necessary.	
SECTION 15: REGULATORY INFORMATION		
U.S. FEDERAL:		
TSCA	Diatomaceous Earth, Natural appears on the EPA TSCA inventory list.	
CERCLA	Diatomaceous Earth, Natural is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 302.	
SARA TITLE III	Not listed.	
SECTION 16: OTHER INFORMATION		
	 <p>NFPA</p> <p>4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant</p>	 <p>HMIS</p> <p>0 Health 0 Flammability 0 Reactivity E Protective Equipment</p>
ORIGINAL ISSUE DATE	March 4, 1994	
REVISION DATE	January 2, 2018	
REVISION NO.	10	

Disclaimer: As of the date of the preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state laws. No warranty, representation or guaranty of any kind, express or implied, is hereby provided or intended with respect to the completeness of the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by the purchase, resale, use or exposure to our product. Customer users of silica must comply with all applicable health and safety laws, regulations and orders, including OSHA Hazardous Communication Standard.

STA-BIL Storage Fuel Stabiliser

Trico Products

Chemwatch: 4789-34
Version No: 6.1.1.1
Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 3

Issue Date: 12/08/2017
Print Date: 12/18/2017
L.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	STA-BIL Storage Fuel Stabiliser
Synonyms	Pack Size: 118 ml Bottle (PN: 27222, 087320800L), 235 ml Bottle (PN:70048819400), 236 ml Bottle (PN: 27223), 473 ml Bottle (PN: 27228), formerly : Gold Eagle - Sta-Bil Storage Fuel Stabiliser
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Fuel stabilizer. Do NOT use in diesel fuel.
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Details of the supplier of the safety data sheet

Registered company name	Trico Products
Address	Unit 1, 80 Fairbank Road Clayton VIC 3169 Australia
Telephone	+61 3 9271 3288
Fax	+61 3 9271 3290
Website	https://www.tricoproducts.com
Email	sales@tricoproducts.com.au

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	+61 3 9271 3288
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

COMBUSTIBLE LIQUID, regulated for storage purposes only

CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability	1 ■■■	
Toxicity	1 ■■■	0 = Minimum
Body Contact	1 ■■■	1 = Low
Reactivity	1 ■■■	2 = Moderate
Chronic	3 ■■■	3 = High
		4 = Extreme

Poisons Schedule S5

Classification (1) Flammable Liquid Category 4, Carcinogenicity Category 2, Reproductive Toxicity Category 1B, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Aspiration Hazard Category 1, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3

Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Label elements



SIGNAL WORD DANGER

Hazard statement(s)

H227 Combustible liquid.

STA-BIL Storage Fuel Stabiliser

- H336** May cause drowsiness or dizziness.
- H304** May be fatal if swallowed and enters airways.
- H412** Harmful to aquatic life with long lasting effects.

Precautionary statement(s) Prevention

- P201** Obtain special instructions before use.
- P210** Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P271** Use only outdoors or in a well-ventilated area.
- P281** Use personal protective equipment as required.
- P261** Avoid breathing mist/vapours/spray.
- P273** Avoid release to the environment.
- P280** Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

- P301+P310** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P308+P313** IF exposed or concerned: Get medical advice/attention.
- P331** Do NOT induce vomiting.
- P370+P378** In case of fire. Use alcohol resistant foam or normal protein foam for extinction.
- P312** Call a POISON CENTER or doctor/physician if you feel unwell.
- P304+P340** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Precautionary statement(s) Storage

- P403+P235** Store in a well-ventilated place. Keep cool.
- P405** Store locked up.

Precautionary statement(s) Disposal

- P501** Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
64742-47-8.	>90	isoparaffins petroleum hydrotreated HFP
Not Available	<10	additives, proprietary

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none">▶ Immediately hold eyelids apart and flush the eye continuously with running water.▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.▶ Transport to hospital or doctor without delay.▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none">▶ Immediately remove all contaminated clothing, including footwear.▶ Flush skin and hair with running water (and soap if available).▶ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none">▶ If fumes or combustion products are inhaled remove from contaminated area.▶ Lay patient down. Keep warm and rested.▶ Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.▶ Transport to hospital, or doctor.
Ingestion	<ul style="list-style-type: none">▶ If swallowed do NOT induce vomiting.▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.▶ Observe the patient carefully.▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.▶ Seek medical advice.▶ Avoid giving milk or oils.▶ Avoid giving alcohol.

STA-BIL Storage Fuel Stabiliser

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility

- ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters

Fire Fighting

- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Wear full body protective clothing with breathing apparatus.
- ▶ Prevent, by any means available, spillage from entering drains or water course.
- ▶ Use water delivered as a fine spray to control fire and cool adjacent area.
- ▶ Avoid spraying water onto liquid pools.
- ▶ **DO NOT** approach containers suspected to be hot.
- ▶ Cool fire exposed containers with water spray from a protected location.
- ▶ If safe to do so, remove containers from path of fire.

Fire/Explosion Hazard

- ▶ Combustible.
- ▶ Slight fire hazard when exposed to heat or flame.
- ▶ Heating may cause expansion or decomposition leading to violent rupture of containers.
- ▶ On combustion, may emit toxic fumes of carbon monoxide (CO).
- ▶ May emit acrid smoke.
- ▶ Mists containing combustible materials may be explosive.

Combustion products include:

carbon dioxide (CO₂)

other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

May emit corrosive fumes.

HAZCHEM

Not Applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills

- ▶ Remove all ignition sources.
- ▶ Clean up all spills immediately.
- ▶ Avoid breathing vapours and contact with skin and eyes.
- ▶ Control personal contact with the substance, by using protective equipment.
- ▶ Contain and absorb spill with sand, earth, inert material or vermiculite.
- ▶ Wipe up.
- ▶ Place in a suitable, labelled container for waste disposal.

Moderate hazard.

- ▶ Clear area of personnel and move upwind.
- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Wear breathing apparatus plus protective gloves.
- ▶ Prevent, by any means available, spillage from entering drains or water course.
- ▶ No smoking, naked lights or ignition sources.
- ▶ Increase ventilation.
- ▶ Stop leak if safe to do so.

Major Spills

STA-BIL Storage Fuel Stabiliser

- ▶ Collect solid residues and seal in labelled drums for disposal.
- ▶ Wash area and prevent runoff into drains.
- ▶ If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

- | | |
|--------------------------|--|
| Safe handling | <ul style="list-style-type: none"> ▶ Containers, even those that have been emptied, may contain explosive vapours. ▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps. ▶ DO NOT enter confined spaces until atmosphere has been checked. ▶ Avoid smoking, naked lights or ignition sources. ▶ Avoid contact with incompatible materials. ▶ When handling, DO NOT eat, drink or smoke. ▶ Keep containers securely sealed when not in use. ▶ Avoid physical damage to containers. ▶ Always wash hands with soap and water after handling. ▶ Work clothes should be laundered separately. ▶ Use good occupational work practice. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS. ▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions. |
| Other information | <ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ No smoking, naked lights or ignition sources. ▶ Store in a cool, dry, well-ventilated area. ▶ Store away from incompatible materials and foodstuff containers. ▶ Protect containers against physical damage and check regularly for leaks. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS. |

Conditions for safe storage, including any incompatibilities

- | | |
|--------------------------------|--|
| Suitable container | <ul style="list-style-type: none"> ▶ Metal can or drum ▶ Packaging as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks. |
| Storage incompatibility | <ul style="list-style-type: none"> ▶ Avoid reaction with oxidising agents |



- X — Must not be stored together
 O — May be stored together with specific precautions
 + — May be stored together

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	isoparaffins petroleum hydrotreated HFP	White spirits	790 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
isoparaffins petroleum hydrotreated HFP	Stoddard solvent: (Mineral spirits, 85% nonane and 15% trimethyl benzene)	300 mg/m3	1,800 mg/m3	29500 mg/m3

Ingredient	Original IDLH	Revised IDLH
isoparaffins petroleum hydrotreated HFP	20000 mg/m3	Not Available
additives, proprietary	Not Available	Not Available

MATERIAL DATA

NOTE M: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.005% w/w benzo[a]pyrene (EINECS No 200-028-5). This note applies only to certain complex oil-derived substances in Annex IV.

European Union (EU) List of harmonised classification and labelling hazardous substances, Table 3.1, Annex VI, Regulation (EC) No 1272/2008 (CLP) - up to the latest ATP

NOTE P: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.01% w/w benzene (EINECS No 200-753-7). Note E shall also apply when the

STA-BIL Storage Fuel Stabiliser

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:
 Process controls which involve changing the way a job activity or process is done to reduce the risk.
 Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
 Employers may need to use multiple types of controls to prevent employee overexposure.

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Personal protection



Eye and face protection

- ▶ Safety glasses with side shields.
- ▶ Chemical goggles.
- ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

Skin protection

See Hand protection below

- ▶ Wear chemical protective gloves, e.g. PVC.
- ▶ Wear safety footwear or safety gumboots, e.g. Rubber

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Hand/foot protection

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.
- Contaminated gloves should be replaced.

For personal applications, gloves with a thickness greater than 0.25 mm are recommended.

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Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.
 Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:
 - Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
 - Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential
 Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ P.V.C. apron. ▶ Barrier cream. ▶ Skin cleansing cream. ▶ Eye wash unit.
Thermal hazards	Not Available

Respiratory protection

Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS	-	A-PAPR-AUS / Class 1
up to 50 x ES	-	A-AUS / Class 1	-
up to 100 x ES	-	A-2	A-PAPR-2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Red liquid with a solvent odour; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	0.8
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	3
Initial boiling point and boiling range (°C)	82.2	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>60.83	Taste	Not Available
Evaporation rate	>1 BuAC = 1	Explosive properties	Not Available
Flammability	Combustible.	Oxidising properties	Not Available
Upper Explosive Limit (%)	7.0	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	0.8	Volatile Component (%vol)	100
Vapour pressure (kPa)	13	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	>1	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ Unstable in the presence of incompatible materials. ▶ Product is considered stable. ▶ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7

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Hazardous decomposition products

See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	<p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.</p> <p>Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.</p> <p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p>
Ingestion	<p>Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result.</p> <p>Signs and symptoms of chemical (aspiration) pneumonitis may include coughing, gasping, choking, burning of the mouth, difficult breathing, and bluish coloured skin (cyanosis).</p> <p>Accidental ingestion of the material may be damaging to the health of the individual.</p>
Skin Contact	<p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material.</p> <p>The material may accentuate any pre-existing dermatitis condition.</p> <p>Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
Eye	<p>Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.</p> <p>On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.</p>
Chronic	<p>There is sufficient evidence to provide a strong presumption that human exposure to the material may result in impaired fertility on the basis of: - clear evidence in animal studies of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary non-specific consequence of other toxic effects.</p> <p>There is sufficient evidence to provide a strong presumption that human exposure to the material may result in developmental toxicity, generally on the basis of: - clear results in appropriate animal studies where effects have been observed in the absence of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not secondary non-specific consequences of the other toxic effects.</p> <p>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.</p> <p>Repeated or prolonged exposure to mixed hydrocarbons may produce narcosis with dizziness, weakness, instability, concentration and/or memory loss, tremor in the fingers and tongue, vertigo, olfactory disorders, constriction of visual field, paraesthesias of the extremities, weight loss and anaemia and degenerative changes in the liver and kidney. Chronic exposure by petroleum workers, to the lighter hydrocarbons, has been associated with visual disturbances, damage to the central nervous system, peripheral neuropathies (including numbness and paraesthesias), psychological and neurophysiological deficits, bone marrow toxicities (including hypoplasia possibly due to benzene) and hepatic and renal involvement. Chronic dermal exposure to petroleum hydrocarbons may result in defatting which produces localised dermatoses. Surface cracking and erosion may also increase susceptibility to infection by microorganisms. One epidemiological study of petroleum refinery workers has reported elevations in standard mortality ratios for skin cancer along with a dose-response relationship indicating an association between routine workplace exposure to petroleum or one of its constituents and skin cancer, particularly melanoma. Other studies have been unable to confirm this finding.</p> <p>Repeated application of mildly hydrotreated oils (principally paraffinic), to mouse skin, induced skin tumours; no tumours were induced with severely hydrotreated oils.</p> <p>Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]</p>

STA-BIL Storage Fuel Stabiliser

TOXICITY	IRRITATION
Not Available	Not Available

isoparaffins petroleum hydrotreated HFP

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Not Available
Dermal (rabbit) LD50: >2000 mg/kg ^[1]	
Inhalation (rat) LC50: >2796.8052 mg/l/8H ^[2]	
Oral (rat) LD50: >4500 mg/kg ^[1]	
Oral (rat) LD50: >5000 mg/kg ^[1]	

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

ISOPARAFFINS PETROLEUM HYDROTREATED HFP

No significant acute toxicological data identified in literature search.

Studies indicate that normal, branched and cyclic paraffins are absorbed from the mammalian gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.

The major classes of hydrocarbons have been shown to be well absorbed by the gastrointestinal tract in various species. In many cases, the hydrophobic

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some hydrocarbons may traverse the mucosal epithelium unmetabolised and appear as solutes in lipoprotein particles in intestinal lymph, there is evidence that most hydrocarbons partially separate from nutrient lipids and undergo metabolic transformation in the enterocyte. The enterocyte may play a major role in determining the proportion of an absorbed hydrocarbon that, by escaping initial biotransformation, becomes available for deposition in its unchanged form in peripheral tissues such as adipose tissue, or in the liver.

Acute Toxicity	☉	Carcinogenicity	✓
Skin Irritation/Corrosion	☉	Reproductivity	✓
Serious Eye Damage/Irritation	☉	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	☉	STOT - Repeated Exposure	☉
Mutagenicity	☉	Aspiration Hazard	✓

Legend: ✗ - Data available but does not fill the criteria for classification
 ✓ - Data available to make classification
 ☉ - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
STA-BIL Storage Fuel Stabiliser	Not Available	Not Available	Not Available	Not Available	Not Available
	Available	Not Available	Available	Available	Available
Isoparaffins petroleum hydrotreated HFP	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	2.2mg/L	4
	NOEC	3072	Fish	=1mg/L	1

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EP/WJN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

DO NOT discharge into sewer or waterways.
 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
isoparaffins petroleum hydrotreated HFP	LOW (BCF = 159)

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

- Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.
- Otherwise:
 - If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
 - Where possible retain label warnings and SDS and observe all notices pertaining to the product.
 - DO NOT allow wash water from cleaning or process equipment to enter drains.
 - It may be necessary to collect all wash water for treatment before disposal.
 - In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
 - Where in doubt contact the responsible authority.
 - Recycle wherever possible or consult manufacturer for recycling options.
 - Consult State Land Waste Authority for disposal.
 - Bury or incinerate residue at an approved site.
 - Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

STA-BIL Storage Fuel Stabiliser

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

ISOPARAFFINS PETROLEUM HYDROTREATED HFP(64742-47-8.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (isoparaffins petroleum hydrotreated HFP)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y

Legend: Y - All ingredients are on the inventory
N - Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
isoparaffins petroleum hydrotreated HFP	64742-47-8., 64742-82-1., 8052-41-3., 1030262-12-4., 101795-05-5.

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

- PC - TWA: Permissible Concentration-Time Weighted Average
- PC - STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit.
- IDLH: Immediately Dangerous to Life or Health Concentrations
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index

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TEL (+61 3) 9572 4700.



Permatex

SAFETY DATA SHEET

Revision Date 21-Feb-2018

Version 6

1. IDENTIFICATION

Product Identifier

Product Name THE RIGHT STUFF GASKET MAKER 7 OZ AE

Other means of identification

Product Code 25224

Recommended use of the chemical and restrictions on use

Recommended Use Sealant
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
6875 Parkland Blvd.
Solon, OH 44139 USA

May Also Be Distributed by:

ITW Permatex Canada
35 Brownridge Road, Unit 1
Halton Hills, ON Canada L7G 0C6
Telephone: (800) 924-6994

24 Hour Emergency Phone Number Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Carcinogenicity	Category 2
Gases under pressure	Compressed gas

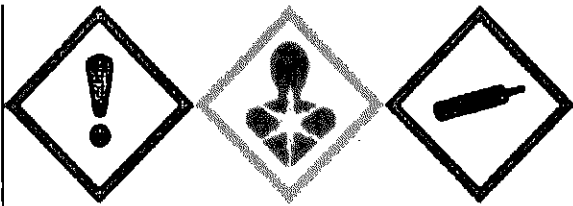
Label elements

Emergency Overview

Signal word

Warning

Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing cancer
Contains gas under pressure; may explode if heated



Appearance Black

Physical state Paste

Odor Mild

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

IF eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store locked up

Protect from sunlight. Store in a well-ventilated place

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

- Not applicable

Unknown acute toxicity

10.294 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance(s)

Chemical Name	CAS No	Weight-%	Trade Secret
NITROGEN	7727-37-9	1 - 5	*
CARBON BLACK	1333-86-4	1 - 5	*
2-BUTANONE OXIME	96-29-7	1 - 5	*

4. FIRST AID MEASURES

Description of first aid measures

General advice

Get medical advice/attention if you feel unwell.

Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN: Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂), Dry chemical, Foam

Unsuitable extinguishing media

None.

Specific hazards arising from the chemical

Contains gas under pressure; may explode if heated.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Contents under pressure.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Ensure adequate ventilation. Flood with water to complete polymerization and scrape off floor. Sweep up and shovel into suitable containers for disposal. Slippery, can cause falls if walked on.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any Incompatibilities

Storage Conditions Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Protect from moisture.

Incompatible materials Strong oxidizing agents, Acids, Water

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
NITROGEN 7727-37-9	See Appendix F: Minimal Oxygen Content	-	-
CARBON BLACK 1333-86-4	TWA: 3 mg/m ³ inhalable fraction	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

- Eye/face protection** Tight sealing safety goggles.
- Skin and body protection** Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.
- Respiratory protection** Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Paste
Appearance Black

Odor Mild
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7-8	
Melting point / freezing point	No information available	
Boiling point / boiling range	Not Applicable	Polymerization
Flash point	> 93 °C / > 200 °F	Tag Closed Cup
Evaporation rate	< 1	Butyl acetate = 1
Flammability (solid, gas)	No information available	
Flammability Limit In Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<5 mmHg @ 70°F	
Vapor density	3	Air = 1
Relative density	1.34	
Water solubility	Not applicable	Polymerization
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point No information available
Molecular weight No information available
VOC Content (%) <3%
Density No information available
Bulk density No information available

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions

Chemical stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents, Acids, Water

Hazardous Decomposition Products

Carbon oxides
Nitrogen oxides (NOx)
Formaldehyde
May release 2-butanone oxime (ethyl methyl ketoxime) at elevated temperature

Information on likely routes of exposure

Inhalation May cause irritation of respiratory tract.

Eye contact Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.
Ingestion Ingestion may cause irritation to mucous membranes.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
CARBON BLACK 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
2-BUTANONE OXIME 96-29-7	= 930 mg/kg (Rat)	1000 - 1800 mg/kg (Rabbit)	> 4800 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Serious eye damage/eye irritation Causes serious eye irritation.
Sensitization May cause sensitization by skin contact.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
CARBON BLACK 1333-86-4	A3	Group 2B	-	X

*ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present*

Target Organ Effects Eyes, Lymphatic System, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 10960 mg/kg
ATEmix (dermal) 8999 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical Name	Partition coefficient
2-BUTANONE OXIME 96-29-7	0.65

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.
US EPA Waste Number	Not applicable

14. TRANSPORT INFORMATION

DOT

UN/ID no	UN 1950
Proper shipping name:	Aerosols, Limited Quantity (LQ)
Hazard Class	2.2
Emergency Response Guide Number	126

IATA

UN/ID no	ID 8000
Proper shipping name:	Consumer commodity
Hazard Class	9
ERG Code	9L

IMDG

UN/ID no	UN 1950
Proper shipping name:	Aerosols, Limited Quantity (LQ)
Hazard Class	2.2
EmS-No	F-D, S-U

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Not determined
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
CARBON BLACK - 1333-86-4	*Carcinogen (airborne, unbound particles of respirable size)

*The asterisked chemical(s) listed are not subject to Proposition 65 because they are not airborne in the finished product

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
NITROGEN 7727-37-9	X	X	X
CARBON BLACK 1333-86-4	X	X	X
ALUMINIUM POWDER 7429-90-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

A Compressed gases, D2A - Very toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	-
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 21-Feb-2018

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

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SAFETY DATA SHEET

SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: GASOLINE, UNLEADED AUTOMOTIVE

Product Description: Hydrocarbons and Additives

Product Code: 123455-20

Intended Use: Fuel, Gasoline

COMPANY IDENTIFICATION

Supplier:

EXXON MOBIL CORPORATION
22777 Springwoods Village Parkway
Spring, TX. 77253 USA

**24 Hour Health Emergency
Transportation Emergency Phone
Product Technical Information
MSDS Internet Address**

609-737-4411
800-424-9300 or 703-527-3887 CHEMTREC
800-662-4525
<http://www.exxon.com>, <http://www.mobil.com>

SECTION 2

HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

CLASSIFICATION:

Flammable liquid: Category 1.

Skin irritation: Category 2. Germ Cell Mutagen: Category 1B. Carcinogen: Category 1B. Specific target organ toxicant (central nervous system): Category 3. Aspiration toxicant: Category 1.

LABEL:

Pictogram:

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Signal Word: Danger

Hazard Statements:

H224: Extremely flammable liquid and vapor. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H336: May cause drowsiness or dizziness. H340: May cause genetic defects. H350: May cause cancer.

Precautionary Statements:

P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P103: Read label before use. P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces. -- No smoking. P233: Keep container tightly closed. P240: Ground / bond container and receiving equipment. P241: Use explosion-proof electrical, ventilating, and lighting equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing mist / vapours. P264: Wash skin thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P308 + P313: IF exposed or concerned: Get medical advice/ attention. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P331: Do NOT induce vomiting. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P370 + P378: In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish. P391: Collect spillage. P403 + P233: Store in a well-ventilated place. Keep container tightly closed. P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up. P501: Dispose of contents and container in accordance with local regulations.

Contains: GASOLINE

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

Material can accumulate static charges which may cause an ignition. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited.

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HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. May be irritating to the eyes, nose, throat, and lungs. Exposure to benzene is associated with cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders (see Section 11).

ENVIRONMENTAL HAZARDS

Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID: Health: 1 Flammability: 3 Reactivity: 0
HMIS Hazard ID: Health: 1* Flammability: 3 Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3	COMPOSITION / INFORMATION ON INGREDIENTS
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This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
ETHYL ALCOHOL	64-17-5	< 11%	H225, H319(2A)
GASOLINE	86290-81-5	89 - 100%	H224, H304, H336, H340(1B), H350(1B), H315, H401, H411

Hazardous Constituent(s) Contained in Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
BENZENE	71-43-2	<= 1.65%	H225, H303, H304, H340(1B), H350(1A), H315, H319(2A), H372, H401
ETHYL BENZENE	100-41-4	1 - 5%	H225, H332, H373, H401, H412
N-HEXANE	110-54-3	1 - 5%	H225, H304, H336, H361(F), H315, H373, H401, H411
NAPHTHALENE	91-20-3	<1%	H302, H351, H400(M factor 1), H410(M factor 1)
PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)	95-63-6	1 - 5%	H226, H332, H335, H315, H319(2A), H401, H411
TOLUENE	108-88-3	5 - 10%	H225, H304, H336,

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			H315, H373, H401, H412
TRIMETHYL BENZENE	25551-13-7	1 - 5%	H226, H315
XYLENES	1330-20-7	5 - 10%	H226, H304, H312, H332, H335, H315, H320(2B), H373, H401

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

NOTE: The concentration of the components shown above may vary substantially. In certain countries, benzene content may be limited to lower levels. Oxygenates such as tertiary-amyl-methyl ether, ethanol, di-isopropyl ether, and ethyl-tertiary-butyl ether may be present. Because of volatility considerations, gasoline vapor may have concentrations of components very different from those of liquid gasoline. The major components of gasoline vapor are: butane, isobutane, pentane, and isopentane. The reportable component percentages, shown in the composition/information on ingredients section, are based on API's evaluation of a typical gasoline mixture. Oxygenates may be present up to the maximum permitted by European Standard EN228. Motor gasoline is considered a mixture by EPA under the Toxic Substances Control Act (TSCA). The refinery streams used to blend motor gasoline are all on the TSCA Chemical Substances Inventory.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

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This light hydrocarbon material, or a component, may be associated with cardiac sensitization following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Extremely Flammable. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: <-40°C (-40°F) [ASTM D-56]

Flammable Limits (Approximate volume % in air): LEL: 1.4 UEL: 7.6

Autoignition Temperature: >250°C (482°F)

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on

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the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H₂S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Water Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Do not confine in area of spill. Advise occupants and shipping in downwind areas of fire and explosion hazard and warn them to stay clear. Allow liquid to evaporate from the surface. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid all personal contact. Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Do not siphon by mouth. Use only with adequate ventilation. Do not use as a cleaning solvent or other non-motor fuel uses. For use as a motor fuel only. It is dangerous and/or unlawful to put fuel into unapproved containers. Do not fill container while it is in or on a vehicle. Static electricity may ignite vapors and cause fire. Place container on ground when filling and keep nozzle in contact with container. Do not use electronic devices (including but not limited to cellular phones, computers, calculators, pagers or other electronic devices, etc.) in or around any fueling operation or storage area unless the devices are certified

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intrinsically safe by an approved national testing agency and to the safety standards required by national and/or local laws and regulations. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

STORAGE

Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. The type of container used to store the material may affect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred. Keep away from incompatible materials. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION
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EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard			NOTE	Source
BENZENE		OSHA Action level	0.5 ppm		N/A	OSHA Sp.Reg.
BENZENE		STEL	5 ppm		N/A	OSHA Sp.Reg.
BENZENE		TWA	1 ppm		N/A	OSHA Sp.Reg.
BENZENE		STEL	1 ppm		N/A	ExxonMobil
BENZENE		TWA	0.5 ppm		N/A	ExxonMobil
BENZENE		STEL	2.5 ppm		Skin	ACGIH
BENZENE		TWA	0.5 ppm		Skin	ACGIH
ETHYL ALCOHOL		TWA	1900 mg/m3	1000 ppm	N/A	OSHA Z1
ETHYL ALCOHOL		STEL	1000 ppm		N/A	ACGIH
ETHYL BENZENE		TWA	435 mg/m3	100 ppm	N/A	OSHA Z1

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ETHYL BENZENE		TWA	20 ppm		N/A	ACGIH
GASOLINE		STEL	200 ppm		N/A	ExxonMobil
GASOLINE		TWA	100 ppm		N/A	ExxonMobil
GASOLINE		STEL	500 ppm		N/A	ACGIH
GASOLINE		TWA	300 ppm		N/A	ACGIH
N-HEXANE		TWA	1800 mg/m3	500 ppm	N/A	OSHA Z1
N-HEXANE		TWA	50 ppm		Skin	ACGIH
NAPHTHALENE		TWA	50 mg/m3	10 ppm	N/A	OSHA Z1
NAPHTHALENE		TWA	10 ppm		Skin	ACGIH
PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)		TWA	25 ppm		N/A	ACGIH
TOLUENE		Ceiling	300 ppm		N/A	OSHA Z2
TOLUENE		Maximum concentration	500 ppm		N/A	OSHA Z2
TOLUENE		TWA	200 ppm		N/A	OSHA Z2
TOLUENE		TWA	20 ppm		N/A	ACGIH
TRIMETHYL BENZENE		TWA	25 ppm		N/A	ACGIH
XYLENES		TWA	435 mg/m3	100 ppm	N/A	OSHA Z1
XYLENES		STEL	150 ppm		N/A	ACGIH
XYLENES		TWA	100 ppm		N/A	ACGIH

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

Biological limits

Substance	Specimen	Sampling Time	Limit	Determinant	Source
BENZENE	Creatinine in urine	End of shift	500 ug/g	t,t-Muconic acid	ACGIH BELs (BEIs)
BENZENE	Creatinine in urine	End of shift	25 ug/g	S-Phenylmercapturic acid	ACGIH BELs (BEIs)
ETHYL BENZENE	Creatinine in urine	End of shift	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	ACGIH BELs (BEIs)
N-HEXANE	Urine	End of shift at end of work wk	0.4 mg/l	2,5-Hexanedion, without hydrolysis	ACGIH BELs (BEIs)
NAPHTHALENE	No Biological Specimen provided	End of shift	Not Assigned	1-Naphthol, with hydrolysis + 2-Naphthol, with hydrolysis	ACGIH BELs (BEIs)
TOLUENE	Blood	Prior to last shift of work wk	0.02 mg/l	Toluene	ACGIH BELs (BEIs)
TOLUENE	Creatinine in urine	End of shift	0.3 mg/g	o-Cresol, with hydrolysis	ACGIH BELs (BEIs)

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TOLUENE	Urine	End of shift	0.03 mg/l	Toluene	ACGIH BELs (BEIs)
XYLENES	Creatinine in urine	End of shift	1.5 g/g	Methylhippuric acids	ACGIH BELs (BEIs)

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Use explosion-proof ventilation equipment to stay below exposure limits.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

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ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
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Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Color: Clear (May Be Dyed)
Odor: Petroleum/Solvent
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.74
Density (at 15 °C): 720 kg/m³ (6.01 lbs/gal, 0.72 kg/dm³) - 758 kg/m³ (6.33 lbs/gal, 0.76 kg/dm³)
Flammability (Solid, Gas): N/A
Flash Point [Method]: <-40°C (-40°F) [ASTM D-56]
Flammable Limits (Approximate volume % in air): LEL: 1.4 UEL: 7.6
Autoignition Temperature: >250°C (482°F)
Boiling Point / Range: > 20°C (68°F)
Decomposition Temperature: N/D
Vapor Density (Air = 1): 3 at 101 kPa
Vapor Pressure: > 26.6 kPa (200 mm Hg) at 20 °C
Evaporation Rate (n-butyl acetate = 1): > 10
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3
Solubility in Water: Negligible
Viscosity: <1 cSt (1 mm²/sec) at 40 °C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A

SECTION 10	STABILITY AND REACTIVITY
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REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

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CONDITIONS TO AVOID: None

MATERIALS TO AVOID: Alkalies, Halogens, Strong Acids, Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11	TOXICOLOGICAL INFORMATION
-------------------	----------------------------------

INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: (Rat) 4 hour(s) LC50 > 5000 mg/m3 (Vapor)	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403
Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Acute Toxicity (Rat): LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401
Skin	
Acute Toxicity (Rabbit): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402
Skin Corrosion/Irritation (Rabbit): Data available.	Irritating to the skin. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404
Eye	
Serious Eye Damage/Irritation (Rabbit): Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: Data available.	Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406
Aspiration: Data available.	May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: Data available.	Caused genetic effects in laboratory animals, but the relevance to humans is uncertain. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 475 476
Carcinogenicity: Data available.	Caused cancer in laboratory animals. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 451
Reproductive Toxicity: Data available.	Not expected to be a reproductive toxicant. Based on test data for

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	structurally similar materials. Test(s) equivalent or similar to OECD Guideline 416 421
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	May cause drowsiness or dizziness.
Repeated Exposure: Data available.	Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 410 412 453

TOXICITY FOR SUBSTANCES

NAME	ACUTE TOXICITY
ETHYL BENZENE	Inhalation Lethality: 4 hour(s) LC50 17.8 mg/l (Vapor) (Rat); Oral Lethality: LD50 3.5 g/kg (Rat)
NAPHTHALENE	Inhalation Lethality: 4 hour(s) LC50 > 0.4 mg/l (Max attainable vapor conc.) (Rat); Oral Lethality: LD50 533 mg/kg (Mouse)

OTHER INFORMATION

For the product itself:

Laboratory animal studies have shown that prolonged and repeated inhalation exposure to light hydrocarbon vapors in the same boiling range as this product can produce adverse kidney effects in male rats. However, these effects were not observed in similar studies with female rats, male and female mice, or in limited studies with other animal species. Additionally, in a number of human studies, there was no clinical evidence of such effects at normal occupational levels. In 1991, The U.S. EPA determined that the male rat kidney is not useful for assessing human risk.

Vapor concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects.

Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Very high exposure (confined spaces / abuse) to light hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drugs may initiate arrhythmias.

Gasoline unleaded: Caused cancer in animal tests. Chronic inhalation studies resulted in liver tumors in female mice and kidney tumors in male rats. Neither result considered significant for human health risk assessment by the United States EPA and others. Did not cause mutations In Vitro or In Vivo. Negative in inhalation developmental studies and reproductive tox studies. Inhalation of high concentrations in animals resulted in reversible central nervous system depression, but no persistent toxic effect on the nervous system. Non-sensitizing in test animals. Caused nerve damage in humans from abusive use (sniffing).

Contains:

BENZENE: Caused cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders in human studies. Caused genetic effects and effects on the immune system in laboratory animal and some human studies. Caused toxicity to the fetus and cancer in laboratory animal studies.

ETHANOL: Prolonged or repeated exposure to high concentrations of ethanol vapor or overexposure by ingestion may produce adverse effects to brain, kidney, liver, and reproductive organs, birth defects in offspring, and developmental toxicity in offspring.

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NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.

N-HEXANE: Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system (e.g. fingers, feet, arms, legs, etc.). Simultaneous exposure to Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown.

TOLUENE : Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (> 1500 ppm) have been reported to cause adverse fetal developmental effects.

TRIMETHYLBENZENE: Long-term inhalation exposure of trimethylbenzene caused effects to the blood in laboratory animals.

ETHYLBENZENE: Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
BENZENE	71-43-2	1, 3, 6
ETHYL BENZENE	100-41-4	5
GASOLINE	86290-81-5	5
NAPHTHALENE	91-20-3	2, 5

--REGULATORY LISTS SEARCHED--

1 = NTP CARC
2 = NTP SUS

3 = IARC 1
4 = IARC 2A

5 = IARC 2B
6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

More volatile component -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

Less volatile component -- Low solubility and floats and is expected to migrate from water to the land. Expected

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to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Majority of components -- Expected to be inherently biodegradable

Atmospheric Oxidation:

More volatile component -- Expected to degrade rapidly in air

BIOACCUMULATION POTENTIAL

Majority of components -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13	DISPOSAL CONSIDERATIONS
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Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP). Potential RCRA characteristics: IGNITABILITY. TCLP (BENZENE)

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

SECTION 14	TRANSPORT INFORMATION
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LAND (DOT)

Proper Shipping Name: GASOLINE

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Hazard Class & Division: 3
ID Number: 1203
Packing Group: II
Marine Pollutant: Yes
ERG Number: 128
Label(s): 3
Transport Document Name: UN1203, GASOLINE, 3, PG II, MARINE POLLUTANT

LAND (TDG)

Proper Shipping Name: GASOLINE
Hazard Class & Division: 3
UN Number: 1203
Packing Group: II
Special Provisions: 17

SEA (IMDG)

Proper Shipping Name: MOTOR SPIRIT or GASOLINE or PETROL
Hazard Class & Division: 3
EMS Number: F-E, S-E
UN Number: 1203
Packing Group: II
Marine Pollutant: Yes
Label(s): 3
Transport Document Name: UN1203, MOTOR SPIRIT or GASOLINE or PETROL, 3, PG II, (-40°C c.c.), MARINE POLLUTANT

AIR (IATA)

Proper Shipping Name: MOTOR SPIRIT or GASOLINE or PETROL
Hazard Class & Division: 3
UN Number: 1203
Packing Group: II
Label(s) / Mark(s): 3
Transport Document Name: UN1203, GASOLINE, 3, PG II

SECTION 15	REGULATORY INFORMATION
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OSHA HAZARD COMMUNICATION STANDARD: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: AICS, DSL, ENCS, KECI, PICCS, TSCA

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

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CERCLA: This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Fire. Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value
BENZENE	71-43-2	<= 1.65%
ETHYL BENZENE	100-41-4	1 - 5%
N-HEXANE	110-54-3	1 - 5%
NAPHTHALENE	91-20-3	<1%
PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)	95-63-6	1 - 5%
TOLUENE	108-88-3	5 - 10%
XYLENES	1330-20-7	5 - 10%

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
BENZENE	71-43-2	1, 2, 4, 10, 11, 13, 15, 16, 17, 18, 19
ETHYL ALCOHOL	64-17-5	1, 4, 13, 16, 17, 18
ETHYL BENZENE	100-41-4	1, 4, 10, 13, 16, 17, 18, 19
GASOLINE	86290-81-5	1, 18
N-HEXANE	110-54-3	1, 4, 13, 16, 17, 18, 19
NAPHTHALENE	91-20-3	1, 4, 10, 17, 19
PSEUDOCUMENE (1,2,4-TRIMETHYLBENZENE)	95-63-6	1, 13, 16, 17, 18, 19
TOLUENE	108-88-3	1, 4, 11, 13, 15, 16, 17, 18, 19
TRIMETHYL BENZENE	25551-13-7	1, 13, 16, 17, 18
XYLENES	1330-20-7	1, 4, 13, 15, 16, 17, 18, 19

--REGULATORY LISTS SEARCHED--

- | | | | |
|---------------|------------------|-------------------|-------------|
| 1 = ACGIH ALL | 6 = TSCA 5a2 | 11 = CA P65 REPRO | 16 = MN RTK |
| 2 = ACGIH A1 | 7 = TSCA 5e | 12 = CA RTK | 17 = NJ RTK |
| 3 = ACGIH A2 | 8 = TSCA 6 | 13 = IL RTK | 18 = PA RTK |
| 4 = OSHA Z | 9 = TSCA 12b | 14 = LA RTK | 19 = RI RTK |
| 5 = TSCA 4 | 10 = CA P65 CARC | 15 = MI 293 | |

Code key: CARC=Carcinogen; REPRO=Reproductive

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SECTION 16

OTHER INFORMATION

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm. Chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm are created by the combustion of this product.

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

H224: Extremely flammable liquid and vapor; Flammable Liquid, Cat 1
H225: Highly flammable liquid and vapor; Flammable Liquid, Cat 2
H226: Flammable liquid and vapor; Flammable Liquid, Cat 3
H302: Harmful if swallowed; Acute Tox Oral, Cat 4
H303: May be harmful if swallowed; Acute Tox Oral, Cat 5
H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1
H312: Harmful in contact with skin; Acute Tox Dermal, Cat 4
H315: Causes skin irritation; Skin Corr/Irritation, Cat 2
H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2A
H320(2B): Causes eye irritation; Serious Eye Damage/Irr, Cat 2B
H332: Harmful if inhaled; Acute Tox Inh, Cat 4
H335: May cause respiratory irritation; Target Organ Single, Resp Irr
H336: May cause drowsiness or dizziness; Target Organ Single, Narcotic
H340(1B): May cause genetic defects; Germ Cell Mutagenicity, Cat 1B
H350(1A): May cause cancer; Carcinogenicity, Cat 1A
H350(1B): May cause cancer; Carcinogenicity, Cat 1B
H351: Suspected of causing cancer; GHS Carcinogenicity, Cat 2
H361(D): Suspected of damaging the unborn child; Repro Tox, Cat 2 (Develop)
H361(F): Suspected of damaging fertility; Repro Tox, Cat 2 (Fertility)
H372: Causes damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 1
H373: May cause damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 2
H400: Very toxic to aquatic life; Acute Env Tox, Cat 1
H401: Toxic to aquatic life; Acute Env Tox, Cat 2
H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1
H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2
H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Section 06: Accidental Release - Spill Management - Water information was modified.
Section 06: Protective Measures information was modified.
Section 07: Handling and Storage - Handling information was modified.
Section 07: Handling and Storage - Storage Phrases information was modified.
Section 08: Biological Exposure Limits (ACG BEL) Table information was modified.
Section 10: Materials to Avoid information was modified.

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Section 11: Chronic Tox - Component information was modified.

Section 11: Other Health Effects information was modified.

THIS MSDS COVERS THE FOLLOWING MATERIALS: ESSO EXTRA MIDGRADE UNLEADED | ESSO MIDGRADE UNLEADED | ESSO PREMIUM UNLEADED | ESSO REGULAR UNLEADED | ESSO SUPER PREMIUM UNLEADED | EXXON MIDGRADE UNLEADED | EXXON PREMIUM UNLEADED | EXXON REGULAR UNLEADED | GASOLINE | INDOLENE GASOLINE | MIDGRADE UNLEADED | MOBIL EXTRA UNLEADED | MOBIL REGULAR UNLEADED | MOBIL SPECIAL UNLEADED | MOBIL SUPER UNLEADED | PREMIUM UNLEADED | REGULAR UNLEADED | UNLEADED GASOLINE

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PPEC: CF

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Northland Gear Lube 80W90

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 01/16/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : Northland Gear Lube 80W90
Product code : 50C2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Gear Lubricant

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Inhalation:dust,mist) H332
Skin Irrit. 2 H315
Eye Irrit. 2A H319
Skin Sens. 1 H317

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust, fume, mist, spray, vapours
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER/doctor/physician if you feel unwell
P332+P313 - If skin irritation occurs: Get medical advice/attention
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P362+P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

other hazards which do not result in classification

: Spills of this product present a serious slipping hazard.

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2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%)	(CAS No) 64741-88-4	< 27	Acute Tox. 4 (Inhalation:dust,mist), H332
Residual oils, petroleum, solvent-refined	(CAS No) 64742-01-4	< 27	Acute Tox. 4 (Inhalation:dust,mist), H332
Polysulfides, di-tert-butyl	(CAS No) 68937-96-2	2,8 - 3,5	Skin Sens. 1B, H317
Phosphoric acid, bis(2-ethylhexyl) ester	(CAS No) 298-07-7	0,7 - 1,5	Acute Tox. 4 (Dermal), H312 Skin Corr. 1C, H314 Eye Dam. 1, H318

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. If material is injected under the skin, seek medical attention immediately. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor. Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product.

Precautions for safe handling : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Use only in well-ventilated areas. Take precautionary measures against static discharge. Avoid generation of dust.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ensure adequate ventilation. Avoid static electricity discharges. Ground/bond container and receiving equipment. A washing facility/water for eye and skin cleaning purposes should be present.

Storage conditions : Keep out of reach of children. Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep container tightly closed and dry.

Incompatible materials : Strong oxidizing agents.

Storage temperature : Store at ambient temperature

Heat and ignition sources : Remove all sources of ignition.

Storage area : Protect against direct sunlight.

Special rules on packaging : Correctly labelled. Do not store in unlabeled containers.

7.3. Specific and use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Personal protective equipment : Avoid all unnecessary exposure. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Gloves. Protective clothing. Protective goggles.



Hand protection : Wear protective gloves. Use neoprene or rubber gloves.
Eye protection : Chemical goggles or safety glasses. with side-shields.
Skin and body protection : If skin contact or contamination of clothing is possible, protective clothing should be worn. safety foot-wear.
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls : Avoid release to the environment.
Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Clear amber.
Odour : Petroleum. Sulfur. Characteristic.
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : > 300 °C (> 572 °F)
Flash point : 228 °C (442 °F)
Self ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : < 0,01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C : > 1
Relative density : 0,893 g/cm³ at 15.6 °C / 60 °F
Solubility : Water: insoluble
Organic solvent: completely soluble
Log Pow : No data available
Log Kow : Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Hazardous polymerisation does not occur.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidizing agents.

Northland Gear Lube 80W90

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

10.6. Hazardous decomposition products

On burning: release of (highly) toxic gases/vapours. fume. Carbon monoxide. Carbon dioxide. Aldehydes. Hydrogen sulfide. Sulfur oxides. Nitrogen oxides (NO_x). Phosphorus oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

Northland Gear Lube 80W90	
ATE (dust,mist)	1,500 mg/l/4h

Polysulfides, di-tert-butyl (68937-96-2)	
LD50 oral rat	6500 mg/kg
ATE (oral)	6500,000 mg/kg bodyweight

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
LD50 oral rat	4940 µl/kg
LD50 dermal rabbit	1250 µl/kg
ATE (dermal)	1100,000 mg/kg bodyweight

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2.18 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Residual oils, petroleum, solvent-refined (64742-01-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2.18 mg/l/4h
ATE (gases)	4500,000 ppmV/4h
ATE (vapours)	2,180 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Harmful if inhaled.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : In case of large spills the product may be hazardous to aquatic organisms due to possible formation of a film on the surface water which can diminish dissolved oxygen levels. This material contains phosphorus which is a controlled element for disposal in effluent waters in most sections of North America. Phosphorus is known to enhance the formation of algae. Severe algae growth can reduce oxygen content in the water possibly below levels necessary to support marine life.

Polysulfides, di-tert-butyl (68937-96-2)	
LC50 fishes 1	250 - 500 mg/l (Exposure time: 96 h - Species: Pimephales promelas (static))

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Polysulfides, di-tert-butyl (68937-96-2)	
LC50 fish 2	> 1000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
LC50 fishes 1	20 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Residual oils, petroleum, solvent-refined (64742-01-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Northland Gear Lube 80W90	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Gear Lube 80W90	
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. Dispose of contents/container to comply with applicable local, national and international regulations. Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Polysulfides, di-tert-butyl (68937-96-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)	
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Residual oils, petroleum, solvent-refined (64742-01-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Residual oils, petroleum, solvent-refined (64742-01-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Residual oils, petroleum, solvent-refined (64742-01-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Inhalation:dust,mist) H332
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Skin Sens. 1 H317
Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xi; R36/38
R43
N ; R51/53

Full text of R-phrases: see section 16

15.2.2. National regulations

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on the Canadian Ingredient Disclosure List

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Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the AICS (the Australian Inventory of Chemical Substances)
 Listed on Inventory of Existing Chemical Substances (IECSC)
 Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
 Listed on the Korean ECL (Existing Chemical List) inventory.
 Listed on New Zealand - Inventory of Chemicals (NZIoC)
 Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Residual oils, petroleum, solvent-refined (64742-01-4)

Listed on the AICS (the Australian Inventory of Chemical Substances)
 Listed on Inventory of Existing Chemical Substances (IECSC)
 Listed on the Korean ECL (Existing Chemical List) inventory.
 Listed on New Zealand - Inventory of Chemicals (NZIoC)
 Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

Polysulfides, di-tert-butyl (68937-96-2)

U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
 U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
 U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
 U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - New Jersey - Special Health Hazards Substances List
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Residual oils, petroleum, solvent-refined (64742-01-4)

U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
Skin Sens. 1B	Sensitisation — Skin, category 1B
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H411	Toxic to aquatic life with long lasting effects
R36/38	Irritating to eyes and skin

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R43	May cause sensitisation by skin contact
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks

Safety Data Sheet

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GLADE® SPRAY - CLEAN LINEN®

Version 1.1

Print Date 03/04/2015

Revision Date 02/24/2015

SDS Number 350000004693

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : GLADE® SPRAY - CLEAN LINEN®

Recommended use : Air Freshener

Manufacturer, importer, supplier : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Telephone : +18005585252

Emergency telephone number : 24 Hour Medical Emergency Phone: (866)231-5406
24 Hour International Emergency Phone: (703)527-3887
24 Hour Transport Emergency Phone: (800)424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System (GHS) Classification

Hazard classification	Hazard category	Hazards identification
Aerosol	Category 2	Flammable aerosol.
Gases under pressure	Liquefied gas	Contains gas under pressure; may explode if heated.

Labelling

Hazard symbols

Flame
Gas cylinder

Signal word

Warning

Hazard statements

Flammable aerosol.
Contains gas under pressure; may explode if heated.

Precautionary statements

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Protect from sunlight. Store in a well-ventilated place.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight percent
Isobutane	75-28-5	10.00 - 30.00
Propane	74-98-6	5.00 - 10.00

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

- Eye contact** : No special requirements
- Skin contact** : No special requirements
- Inhalation** : No special requirements.
- Ingestion** : No special requirements

5. FIREFIGHTING MEASURES

- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during firefighting** : Aerosol Product - Containers may rocket or explode in heat of fire.
- Further information** : Fight fire from maximum distance or protected area. Cool and use caution when approaching or handling fire-exposed containers. Wear full protective clothing and positive pressure self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Remove all sources of ignition.

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Wash thoroughly after handling.

Environmental precautions : Outside of normal use, avoid release to the environment.

Methods and materials for containment and cleaning up : If damage occurs to aerosol can:
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Use only non-sparking equipment.
Dike large spills.
Clean residue from spill site.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling : Avoid contact with skin, eyes and clothing.
For personal protection see section 8.
Note: Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. For more information visit www.inhalant.org.
Use only as directed.
KEEP OUT OF REACH OF CHILDREN AND PETS.
Pressurized container.
Do not pierce or burn, even after use.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.
Do not spray on an open flame or other ignition source.

Storage

Requirements for storage areas and containers : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Keep in a dry, cool and well-ventilated place.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Components	CAS-No.	mg/m3	ppm	Non-standard units	Basis
Isobutane	75-28-5	-	1,000 ppm	-	ACGIH STEL
Propane	74-98-6	-	1,000 ppm	-	ACGIH TWA
Propane	74-98-6	1,800 mg/m3	1,000 ppm	-	OSHA TWA

Personal protective equipment

- Respiratory protection** : No special requirements.
- Hand protection** : No special requirements.
- Eye protection** : No special requirements.
- Skin and body protection** : No special requirements.
- Hygiene measures** : Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form** : aerosol
compressed liquefied gas
- Color** : clear
- Odor** : pleasant
- Odour Threshold** : No data available
- pH** : Not applicable

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Melting point/freezing point : Not applicable

Initial boiling point and boiling range : Not applicable

Flash point : < -6.8 °C
< 19.76 °F
Propellant

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper/lower flammability or explosive limits : No data available

Vapour pressure : No data available

Vapour density : No data available

Relative density : 0.86 g/cm³

Solubility(ies) : completely soluble

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : Not applicable

Decomposition temperature : No data available

Viscosity, dynamic : No data available

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Viscosity, kinematic	:	No data available	
Oxidizing properties	:	No data available	
Volatile Organic Compounds Total VOC (wt. %)*	:	19.6 % - additional exemptions may apply *as defined by US Federal and State Consumer Product Regulations	
Other information	:	None identified	:

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Thermal decomposition can lead to release of irritating gases and vapours.

11. TOXICOLOGICAL INFORMATION

Emergency Overview	:	Warning
Acute oral toxicity	:	LD50 estimated > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 estimated > 5 mg/l
Acute dermal toxicity	:	LD50 estimated

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> 2,000 mg/kg

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	-
Skin corrosion/irritation	No classification proposed	-
Serious eye damage/eye irritation	No classification proposed	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ toxicity - single exposure	No classification proposed	-
Specific target organ toxicity - repeated exposure	No classification proposed	-
Aspiration hazard	No classification proposed	-

Aggravated Medical Condition : None known.

12. ECOLOGICAL INFORMATION

Product : The product itself has not been tested.

Toxicity

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

Toxicity to fish

Components	End point	Species	Value	Exposure time

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Isobutane	LC50	Fish	27.98 mg/l	96 h
Propane	LC50	Fish	27.98 mg/l	96 h

Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
Isobutane	LC50	Daphnid	16.33 mg/l	48 h
Propane	LC50	Daphnid	14.22 mg/l	48 h

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
Isobutane	EC50	Green algae	8.57 mg/l	96 h
Propane	No data available			

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
Isobutane	70 %	< 10 d	Readily biodegradable
Propane	70 %	< 10 d	Readily biodegradable

Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)

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Isobutane	1.57 - 1.97	2.8
Propane	No data available	2.36

Mobility

Component	End point	Value
Isobutane	No data available	
Propane	No data available	

PBT and vPvB assessment

Component	Results
Isobutane	Not fulfilling PBT and vPvB criteria
Propane	Not fulfilling PBT and vPvB criteria

Other adverse effects : None known.

13. DISPOSAL CONSIDERATIONS

Consumer may discard empty container in trash, or recycle where facilities exist.

14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

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	Land transport	Sea transport	Air transport
UN number	1950	1950	1950
UN proper shipping name	AEROSOLS, Flammable, 2.1	AEROSOLS, Flammable, 2.1	AEROSOLS, Flammable, 2.1
Transport hazard class(es)	2.1	2	2.1
Packing group	-	-	-
Environmental hazards	-	-	-
Special precautions for user	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.

15. REGULATORY INFORMATION

Notification status : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Notification status : All ingredients of this product comply with the New Substances Notification requirements under the Canadian Environmental Protection Act (CEPA).

California Prop. 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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16. OTHER INFORMATION

HMIS Ratings

Health	1
Flammability	4
Reactivity	0

NFPA Ratings

Health	1
Fire	4
Reactivity	0
Special	-

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

Further information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment & Regulatory Affairs (GSARA)
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SAFETY DATA SHEET



GOJO® ORIGINAL FORMULA™ Hand Cleaner

Version 1.1

SDS Number: 40000000198

Revision Date: 02/28/2018

SECTION 1. IDENTIFICATION

Product name : GOJO® ORIGINAL FORMULA™ Hand Cleaner

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron, Ohio 44311

Telephone : 1 (330) 255-6000

Emergency telephone number : CHEMTREC 1-800-424-9300
CHEMTREC +1-703-527-3887: Outside USA & CANADA

Recommended use of the chemical and restrictions on use

Recommended use : Skin-care

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.


GOJO® ORIGINAL FORMULA™ Hand Cleaner

Version 1.1

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Precautionary statements : **Prevention:**
 P280 Wear eye protection/ face protection.
Response:
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Other hazards
 None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
Hazardous components

Chemical name	CAS-No.	Concentration (%)
C11-15 Alkane/cycloalkane	64742-47-8	>= 30 - < 50
Mineral Oil (Paraffinum Liquidum)	8042-47-5	>= 10 - < 20
Trideceth-9	24938-91-8	>= 1 - < 5
Propylene Glycol	57-55-6	>= 1 - < 5
Petrolatum	8009-03-8	>= 1 - < 5
Sodium Hydroxymethylglycinate	70161-44-3	>= 0.1 - < 1
Chloroxylenol	88-04-0	>= 0.1 - < 1

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
 When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
 If symptoms persist, call a physician.

In case of skin contact : Wash with water and soap as a precaution.
 Get medical attention if irritation develops and persists.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
 If easy to do, remove contact lens, if worn.
 Seek medical advice.

If swallowed : If swallowed, DO NOT induce vomiting.
 Rinse mouth with water.
 Obtain medical attention.

Most important symptoms and effects, both acute and delayed : Causes serious eye damage.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO₂)
- Unsuitable extinguishing media : None known.
- Hazardous combustion products : Carbon oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Material can create slippery conditions.
- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Do not swallow.


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Avoid contact with eyes.
Keep container closed when not in use.

Conditions for safe storage : Keep in properly labelled containers.
Keep container tightly closed in a dry and well-ventilated place.
Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
C11-15 Alkane/cycloalkane	64742-47-8	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA	200 mg/m ³ (as total hydrocarbon vapor)	ACGIH
		TWA (Mist)	5 mg/m ³	NIOSH REL
		ST (Mist)	10 mg/m ³	NIOSH REL
Mineral Oil (Paraffinum Liquidum)	8042-47-5	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m ³	ACGIH
		TWA (Mist)	5 mg/m ³	NIOSH REL
		ST (Mist)	10 mg/m ³	NIOSH REL
		TWA (Mist)	5 mg/m ³	OSHA P0
Propylene Glycol	57-55-6	TWA	10 mg/m ³	US WEEL
Petrolatum	8009-03-8	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m ³	ACGIH
		TWA (Mist)	5 mg/m ³	NIOSH REL
		ST (Mist)	10 mg/m ³	NIOSH REL
		TWA (Mist)	5 mg/m ³	OSHA P0

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection
Remarks : No special protective equipment required.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : No special measures necessary provided product is used correctly.

Protective measures : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to


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the specific work-place.
Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : opaque, white, yellow

Odour : solvent-like

pH : 9.0, (20 °C)

Melting point/freezing point : No data available

Initial boiling point and boiling range : 98 °C

Flash point : > 100 °C

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Density : 0.883 g/cm³

Solubility(ies)
Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

Thermal decomposition : The substance or mixture is not classified self-reactive.

Viscosity
Viscosity, kinematic : > 100000 mm²/s (20 °C)


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Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Conditions to avoid : No data available

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure

Inhalation
 Eye contact
 Skin contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
 Method: Calculation method

Components:
C11-15 Alkane/cycloalkane:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.3 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: The substance or mixture has no acute inhalation toxicity
 Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg
 Assessment: The substance or mixture has no acute dermal toxicity

Mineral Oil (Paraffinum Liquidum):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
 Exposure time: 4 h
 Test atmosphere: dust/mist
 Assessment: The substance or mixture has no acute inhalation toxicity

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Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Trideceth-9:

Acute oral toxicity : LD50 (Rat): > 500 - < 2,000 mg/kg

Propylene Glycol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rabbit): > 159 mg/l, > 51091 ppm

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Petrolatum:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Acute oral toxicity : LD50 (Rat): 1,050 mg/kg

Chloroxyleneol:

Acute oral toxicity : Acute toxicity estimate : 500 mg/kg
Method: Expert judgement
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute inhalation toxicity : LC50 (Rat): > 6.29 mg/l
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

C11-15 Alkane/cycloalkane:

Assessment: Repeated exposure may cause skin dryness or cracking.

Mineral Oil (Paraffinum Liquidum):

Species: Rabbit

Result: No skin irritation



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Trideceth-9:

Species: Rabbit

Result: No skin irritation

Propylene Glycol:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Petrolatum:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Species: Rabbit

Result: Skin irritation

Chloroxylenol:

Result: Skin irritation

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

C11-15 Alkane/cycloalkane:

Species: Rabbit

Result: No eye irritation

Mineral Oil (Paraffinum Liquidum):

Species: Rabbit

Result: No eye irritation

Trideceth-9:

Species: Rabbit

Result: Irreversible effects on the eye

Propylene Glycol:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Petrolatum:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Chloroxylenol:

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Result: Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Product:

Result: Does not cause skin sensitisation.

Remarks: Patch test on human volunteers did not demonstrate sensitisation properties.

Components:**C11-15 Alkane/cycloalkane:**

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Propylene Glycol:

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Petrolatum:

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: positive

Assessment: Probability or evidence of skin sensitisation in humans

Chloroxylenol:

Assessment: Probability or evidence of skin sensitisation in humans

Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Germ cell mutagenicity

Not classified based on available information.

Components:**C11-15 Alkane/cycloalkane:**

Genotoxicity in vitro

Test Type: Bacterial reverse mutation assay (AMES)


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Result: negative

Genotoxicity in vivo : Test Type: Chromosomal aberration
 Test species: Rat
 Application Route: Intraperitoneal injection
 Result: negative
 Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
 Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo
 cytogenetic assay)
 Test species: Mouse
 Application Route: Intraperitoneal injection
 Method: OECD Test Guideline 474
 Result: negative
 Remarks: Based on data from similar materials

Propylene Glycol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
 Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Test species: Mouse
 Application Route: Intraperitoneal injection
 Result: negative

Petrolatum:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
 Result: negative
 Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo
 cytogenetic assay)
 Test species: Mouse
 Application Route: Intraperitoneal injection
 Method: OECD Test Guideline 474
 Result: negative
 Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
 Result: negative

Genotoxicity in vivo : Test Type: Unscheduled DNA synthesis (UDS) test with
 mammalian liver cells in vivo
 Test species: Rat
 Result: negative

Chloroxylenol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
 Result: negative

Carcinogenicity


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Not classified based on available information.

Components:
Mineral Oil (Paraffinum Liquidum):

Species: Rat
 Application Route: Ingestion
 Exposure time: 24 Months
 Result: negative

Propylene Glycol:

Species: Rat
 Application Route: Ingestion
 Exposure time: 2 Years
 Result: negative

Petrolatum:

Species: Rat
 Application Route: Ingestion
 Exposure time: 2 Years
 Result: negative

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:
C11-15 Alkane/cycloalkane:

Effects on fertility : Test Type: One-generation reproduction toxicity study
 Species: Rat
 Application Route: Ingestion
 Result: negative
 Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
 Species: Rat
 Application Route: Ingestion
 Result: negative

Mineral Oil (Paraffinum Liquidum):

Effects on fertility : Test Type: One-generation reproduction toxicity study
 Species: Rat
 Application Route: Skin contact
 Result: negative

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Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

Propylene Glycol:

Effects on fertility : Species: Mouse
Application Route: Ingestion
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Mouse
Application Route: Ingestion
Result: negative

Petrolatum:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Skin contact
Result: negative
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Effects on foetal development : Species: Rat
Application Route: Ingestion
Result: negative

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity**Components:****C11-15 Alkane/cycloalkane:**

Species: Rat
NOAEL: > 10.4 mg/l
Application Route: inhalation (vapour)
Exposure time: 90 d
Remarks: Based on data from similar materials

Mineral Oil (Paraffinum Liquidum):

Species: Rat
LOAEL: 160 mg/kg
Application Route: Ingestion
Exposure time: 90 d

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Species: Rat
LOAEL: \geq 1 mg/l
Application Route: inhalation (dust/mist/fume)
Exposure time: 4 w
Method: OECD Test Guideline 412

Propylene Glycol:

Species: Rat
NOAEL: 1,700 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Petrolatum:

Species: Rat
NOAEL: 5,000 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Chloroxylenol:

Species: Rabbit
LOAEL: 180 mg/kg
Application Route: Skin contact
Exposure time: 90 d

Aspiration toxicity

Not classified based on available information.

Components:

C11-15 Alkane/cycloalkane:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Mineral Oil (Paraffinum Liquidum):

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

C11-15 Alkane/cycloalkane:

Toxicity to fish	: LL50 (Danio rerio (zebra fish)): > 250 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EL50 (Acartia tonsa): > 3,193 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction
Toxicity to algae	: EL50 (Skeletonema costatum (marine diatom)): > 3,200 mg/l Exposure time: 72 h Test substance: Water Accommodated Fraction


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NOELR (*Skeletonema costatum* (marine diatom)): 993 mg/l
 Exposure time: 72 h
 Test substance: Water Accommodated Fraction

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (*Ceriodaphnia Dubia* (water flea)): > 70 mg/l
 Exposure time: 8 d
 Test substance: Water Accommodated Fraction

Toxicity to bacteria : EC50: > 100 mg/l
 Exposure time: 3 h

Mineral Oil (Paraffinum Liquidum):

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 100 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 202

Toxicity to algae : NOEC (*Pseudokirchneriella subcapitata* (green algae)): 100 mg/l
 Exposure time: 72 h
 Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC (*Oncorhynchus mykiss* (rainbow trout)): 1,000 mg/l
 Exposure time: 28 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (*Daphnia magna* (Water flea)): 1,000 mg/l
 Exposure time: 21 d

Trideceth-9:

Toxicity to fish : LC50 (*Leuciscus idus* (Golden orfe)): > 1 - 10 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50: > 1 - 10 mg/l
 Exposure time: 48 h

Toxicity to algae : EC50: > 1 - 10 mg/l
 Exposure time: 72 h

Propylene Glycol:

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 40,613 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Ceriodaphnia Dubia* (water flea)): 18,340 mg/l
 Exposure time: 48 h

Toxicity to algae : EC50 (*Skeletonema costatum* (marine diatom)): 19,000 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : Chronic Toxicity Value: 2,500 mg/l
 Exposure time: 30 d


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- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Ceriodaphnia Dubia (water flea)): 29,000 mg/l
Exposure time: 7 d
- Toxicity to bacteria : NOEC (Pseudomonas putida): > 20,000 mg/l
Exposure time: 18 h
- Petrolatum:**
- Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials
- Toxicity to algae : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 21 d
Test substance: Water Accommodated Fraction
Remarks: Based on data from similar materials
- Sodium Hydroxymethylglycinate:**
- Toxicity to fish : LC50: > 10 - 100 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): > 10 - 100 mg/l
Exposure time: 48 h
- Toxicity to algae : ErC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 10 - 100 mg/l
Exposure time: 72 h
- Toxicity to bacteria : EC50: > 100 mg/l
Exposure time: 120 h
- Chloroxylenol:**
- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7.7 mg/l
Exposure time: 48 h
- M-Factor (Acute aquatic toxicity) : 1

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Persistence and degradability**Components:****C11-15 Alkane/cycloalkane:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 82 %
Exposure time: 24 d
Method: OECD Test Guideline 301F

Mineral Oil (Paraffinum Liquidum):

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 31 %
Exposure time: 28 d

Trideceth-9:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d

Propylene Glycol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 98.3 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Petrolatum:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Sodium Hydroxymethylglycinate:

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential**Components:****Propylene Glycol:**

Partition coefficient: n-octanol/water : log Pow: -1.07

Sodium Hydroxymethylglycinate:

Partition coefficient: n-octanol/water : log Pow: < 3

Chloroxylenol:

Partition coefficient: n-octanol/water : log Pow: 3.27

Mobility in soil

No data available

Other adverse effects

No data available


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Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION
International Regulation**IATA-DGR**

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

National Regulations**49 CFR**

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know Act**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Hydroxide	1310-73-2	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.


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SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Propylene Glycol	57-55-6	1.7691 %
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This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations
Massachusetts Right To Know

C11-15 Alkane/cycloalkane	64742-47-8	30 - 50 %
Mineral Oil (Paraffinum Liquidum)	8042-47-5	10 - 20 %
Petrolatum	8009-03-8	1 - 5 %
Sodium Hydroxymethylglycinate	70161-44-3	0.1 - 1 %

Pennsylvania Right To Know

C11-15 Alkane/cycloalkane	64742-47-8	30 - 50 %
Water (Aqua)	7732-18-5	30 - 50 %
Mineral Oil (Paraffinum Liquidum)	8042-47-5	10 - 20 %
Oleic Acid	112-80-1	5 - 10 %
Trideceth-9	24938-91-8	1 - 5 %
Propylene Glycol	57-55-6	1 - 5 %
Petrolatum	8009-03-8	1 - 5 %
Sodium Hydroxide	1310-73-2	0.1 - 1 %
Sodium Hydroxymethylglycinate	70161-44-3	0.1 - 1 %

New Jersey Right To Know

C11-15 Alkane/cycloalkane	64742-47-8	30 - 50 %
Water (Aqua)	7732-18-5	30 - 50 %
Mineral Oil (Paraffinum Liquidum)	8042-47-5	10 - 20 %
Oleic Acid	112-80-1	5 - 10 %
Trideceth-9	24938-91-8	1 - 5 %
Propylene Glycol	57-55-6	1 - 5 %
Sodium Hydroxymethylglycinate	70161-44-3	0.1 - 1 %

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory


GOJO® ORIGINAL FORMULA™ Hand Cleaner

Version 1.1

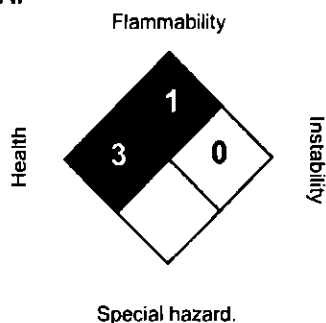
SDS Number: 400000000198

Revision Date: 02/28/2018

AICS	: On the inventory, or in compliance with the inventory
DSL	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 02/28/2018

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SAFETY DATA SHEET

Goof Off Goodbye Cracks

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Printed: 04/15/2015

Revision: 04/15/2015

Supersedes Revision: 03/20/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Goof Off Goodbye Cracks

Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN 38113

Phone Number: (901)775-0100

Web site address: www.wmbarr.com

Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346

Information: W.M. Barr Customer Service (800)398-3892

Intended Use: Repair of cracks in plaster, drywall, and wood.

Synonyms: FG695, FG697

Additional Information This product is regulated by the United States Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS). The product label also includes other important information, including directions for use, and should always be read in its entirety prior to using the product.

2. HAZARDS IDENTIFICATION

Flammable Aerosols, Category 1
Gas Under Pressure, Liquefied gas
Acute Toxicity: Inhalation, Category 4
Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 1
Germ Cell Mutagenicity, Category 1A
Carcinogenicity, Category 2
Specific Target Organ Toxicity (single exposure), Category 3
Aspiration Toxicity, Category 1
Simple Asphyxiant

**GHS Signal Word:**

Danger

GHS Hazard Phrases:

H223: Flammable aerosol.
H280: Containers gas under pressure; may explode if heated.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H351: Suspected of causing cancer.

GHS Precaution Phrases:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211: Do not spray on an open flame or any other ignition source.
P251: Pressurized container: Do not pierce or burn, even after use.
P261: Avoid breathing gas/mist/vapors/spray.
P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.

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Goof Off Goodbye Cracks

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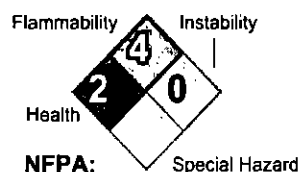
GHS Response Phrases:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P281: Use personal protective equipment as required.
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+352: IF ON SKIN: Wash with plenty of soap and water.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313: IF exposed or concerned: Get medical attention/advice.
P310: Immediately call a POISON CENTER or doctor/physician.
P321: Specific treatment see label.
P331: Do NOT induce vomiting.
P332+313: If skin irritation occurs, get medical advice/attention.
P362: Take off contaminated clothing and wash before re-use.
P403+233: Store container tightly closed in well-ventilated place.
P405: Store locked up.
P410+403: Protect from sunlight and store in well-ventilated place.
P412: Do not expose to temperatures exceeding 50 °C/122 °F.
P501: Dispose of contents/container according to local, state and federal regulations.

GHS Storage and Disposal Phrases:

Hazard Rating System:

HEALTH	*	2
FLAMMABILITY		4
		0
PPE		X



HMIS:

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

Potential Health Effects (Acute and Chronic):

EYE CONTACT:

Will cause eye irritation.

SKIN CONTACT:

Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

INHALATION:

Headaches, dizziness, nausea, central nervous system depression, decreased blood pressure, changes in heart rate and cyanosis may result from over-exposure to vapor. Prolonged inhalation may be harmful. May cause respiratory tract irritation.

INGESTION:

Moderately toxic. May be harmful if swallowed.

CHRONIC HAZARDS:

Chronic overexposure to xylene may cause damage to the formed elements of blood (e.g., red cells, which carry oxygen). Reports indicate that repeated and prolonged overexposure of the eyes to xylene vapor may cause corneal injury. Repeated, excessive exposures may cause kidney and liver damage. Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Intentional misuse by deliberately concentrating and inhaling solvents may be harmful or fatal.

PRIMARY ROUTES OF ENTRY:

skin contact, inhalation, ingestion, eye contact

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TARGET ORGANS AND SYSTEMS:

liver, kidneys, circulatory system, central nervous system

Medical Conditions Generally Diseases of the skin.**Aggravated By Exposure:**

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration	RTECS #
1330-20-7	Xylene (mixed isomers) {Benzene, dimethyl-}	30.0 -50.0 %	ZE2100000
142-82-5	Heptane	20.0 -40.0 %	MI7700000
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	<35.0 %	NA
100-41-4	Ethylbenzene {Ethylbenzol; Phenylethane}	<15.0 %	DA0700000
112945-52-5	Silica, amorphous treated {Fumed silica}	< 5.0 %	VV7310000
1317-65-3	Limestone {Calcium carbonate; Pigment white 18; Lithographic stone}	< 5.0 %	EV9580000

Additional Chemical Information

Specific percentage of composition is being withheld as a trade secret.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:**Skin:**

Remove contaminated clothing. Immediately wash skin thoroughly with large amounts of water and mild soap, if available. Seek medical attention if irritation develops or persists. Do not use organic solvent to remove product from skin.

Eyes:

Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes. Seek medical attention.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Ingestion:

If swallowed, do NOT induce vomiting. Seek immediate medical attention. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Signs and Symptoms Of Exposure:

See Potential Health Effects.

Note to Physician:

Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

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5. FIRE FIGHTING MEASURES

Flammability Classification:	Level 3 Aerosol
Flash Pt:	80.00 F
Explosive Limits:	LEL: 1 % UEL: 6.7%
Autoignition Pt:	No data.
Suitable Extinguishing Media:	Use carbon dioxide, dry powder, water spray, or foam.
Unsuitable Extinguishing Media:	Water jet.
Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from containers that have been exposed to intense heat or flame. Water runoff can cause environmental damage. Dike and collect water used to fight fire.
Flammable Properties and Hazards:	FLASHPOINT OF LIQUID: 80 F FLASHPOINT OF PROPELLANT: -138.23 F EXTREMELY FLAMMABLE LIQUID AND VAPOR. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, sparks, flame, and other ignition sources distant from material handling point.

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled:	Extremely flammable liquid and vapors. Vapors are heavier than air. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, sparks, flame, and other ignition sources. Isolate the immediate area. Prevent unauthorized entry. Eliminate all sources of ignition in area and downwind of the spill area. Stay upwind, out of low areas, and ventilate closed spaces before entering. All equipment used when handling this product must be grounded or non-sparking. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to compatible containers. For large spills, dike ahead of the spill.
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7. HANDLING AND STORAGE

Precautions To Be Taken in Handling:	Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container. Do not use this product near any source of heat, sparks, open flame, furnace areas, pilot lights, stoves, etc. Do not use in small enclosed spaces, such as basements and bathrooms. Vapors can accumulate and explode if ignited. Avoid contact with eyes and prolonged skin contact. Avoid breathing vapors.
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Keep out of reach of children.

Precautions To Be Taken in Storing:

Store in a cool, dry place. Do not store near flames or at elevated temperatures above 120 F. Protect against freezing. Do not store in direct sunlight.

Segregate from metals, lyes, oxidants, and from foods and animal feeds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
1330-20-7	Xylene (mixed isomers) {Benzene, dimethyl-}	PEL: 100 ppm	TLV: 100 ppm STEL: 150 ppm	No data.
142-82-5	Heptane	PEL: 500 ppm	TLV: 400 ppm	No data.
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	No data.	No data.	No data.
100-41-4	Ethylbenzene {Ethylbenzol; Phenylethane}	PEL: 100 ppm	TLV: 100 ppm STEL: 125 ppm	No data.
112945-52-5	Silica, amorphous treated {Fumed silica}	No data.	No data.	No data.
1317-65-3	Limestone {Calcium carbonate; Pigment white 18; Lithographic stone}	PEL: 15 (dust); 5 (resp.) mg/m3	No data.	No data.

Respiratory Equipment (Specify Type):

For use in areas with inadequate ventilation or fresh air, wear a properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors.

For OSHA controlled work places and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding the appropriate TLV.

A dust mask does not provide protection against vapors.

Eye Protection:

Safety glasses, chemical goggles, or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Chemical goggles or face shields are recommended when splashing or spraying of chemical is possible. A faceshield provides more protection to help reduce chemical contact to the face and eyes.

Protective Gloves:

Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile may provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

Other Protective Clothing:

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

Engineering Controls (Ventilation etc.):

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas. Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.

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Work/Hygienic/Maintenance Practices: Wash hands thoroughly after use and before eating, drinking, or smoking.

Practices:

Do not eat, drink, or smoke in the work area.

Discard any clothing or other protective equipment that cannot be decontaminated.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: [X] Gas [X] Liquid [] Solid
Appearance and Odor: Opaque, off-white (possibly varying colors) paste with a solvent-like odor.
Melting Point: No data.
Boiling Point: 277.00 F - 315.00 F
Autoignition Pt: No data.
Flash Pt: 80.00 F
Explosive Limits: LEL: 1 % UEL: 6.7%
Specific Gravity (Water = 1): No data.
Density: 0.98
Vapor Pressure (vs. Air or mm Hg): No data.
Vapor Density (vs. Air = 1): > 1
Evaporation Rate: No data.
Solubility in Water: slight
Percent Volatile: 87.0 %

10. STABILITY AND REACTIVITY

Stability: Unstable [] Stable [X]
Conditions To Avoid - Instability: No data available.
Incompatibility - Materials To Avoid: Strong oxidizers, acids, and bases.
Hazardous Decomposition Or Byproducts: carbon monoxide, carbon dioxide
Possibility of Hazardous Reactions: Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions: No data available.

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11. TOXICOLOGICAL INFORMATION

Toxicological Information: Material has not been tested as whole. Refer to section 2 for acute and chronic effects.

Carcinogenicity/Other Information:

CAS# 1330-20-7:

Acute toxicity, LC50, Inhalation, Rat, 5000. PPM, 4 H.

Result:

Behavioral: Muscle contraction or spasticity.

Lungs, Thorax, or Respiration: Other changes.

- Raw Material Data Handbook, Vol. 1: Organic Solvents, 1974., National Assoc. of Printing Ink Research Institute, Francis McDonald Sinclair Memorial Labor, Lehigh Univ., Bethlehem, PA 18015, Vol/p/yr: 1,123, 1974

Standard Draize Test, Eyes, Species: Rabbit, 5.000 MG, 24 H, Severe.

Result:

Behavioral: General anesthetic.

Behavioral: Somnolence (general depressed activity).

Behavioral: Irritability.

- "Sbornik Vysledku Toxixologickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,24, 1972

CAS# 100-41-4:

Tumorigenic Effects:, TClO, Inhalation, Rat, 750.0 ppm.

Result:

Tumorigenic: Carcinogenic by RTECS criteria.

Kidney, Ureter, Bladder: Tumors.

Standard Draize Test, Eyes, Species: Rabbit, 500.0 MG, Severe.

Result:

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth).

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

- American Journal of Ophthalmology., Ophthalmic Pub. Co., 435 N. Michigan Ave., Suite 1415, Chicago, IL 60611, Vol/p/yr: 29,1363, 1946

IARC 2B - Possibly Carcinogenic to Humans

IARC 3: Not Classifiable as to Carcinogenicity in Humans.

ACGIH A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

ACGIH A4 - Not Classifiable as a Human Carcinogen.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
1330-20-7	Xylene (mixed isomers) {Benzene, dimethyl-}	n.a.	3	A4	n.a.
142-82-5	Heptane	n.a.	n.a.	n.a.	n.a.
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	n.a.	n.a.	n.a.	n.a.
100-41-4	Ethylbenzene {Ethylbenzol; Phenylethane}	n.a.	2B	A3	n.a.
112945-52-5	Silica, amorphous treated {Fumed silica}	n.a.	n.a.	n.a.	n.a.
1317-65-3	Limestone {Calcium carbonate; Pigment white 18; Lithographic stone}	n.a.	n.a.	n.a.	n.a.

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Goof Off Goodbye Cracks

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12. ECOLOGICAL INFORMATION

General Ecological Information: Material has not been tested as a whole.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with local, state, and federal laws.

Do not place material in general trash.

Do not allow material to enter bodies of water or sewers.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Consumer Commodity, ORM-D

DOT Hazard Class:

UN/NA Number:

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: UN1950, Aerosols, flammable, 2.1, Ltd. Qty.

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: UN1950, Aerosols, flammable, 2.1, Ltd. Qty.

Additional Transport Information:

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
1330-20-7	Xylene (mixed isomers) {Benzene, dimethyl-}	No	Yes 100 LB	Yes
142-82-5	Heptane	No	No	No
68476-86-8	Liquified petroleum gas, sweetened {propane, isobutane, n-butane}	No	No	No
100-41-4	Ethylbenzene {Ethylbenzol; Phenylethane}	No	Yes 1000 LB	Yes
112945-52-5	Silica, amorphous treated {Fumed silica}	No	No	No
1317-65-3	Limestone {Calcium carbonate; Pigment white 18; Lithographic stone}	No	No	No

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Acute (immediate) Health Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Chronic (delayed) Health Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Fire Hazard
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Sudden Release of Pressure Hazard
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
1330-20-7	Xylene (mixed isomers) {Benzene, dimethyl-}	CAA HAP,ODC: HAP; CWA NPDES: Yes; TSCA: Yes - Inventory; CA PROP.65: No
142-82-5	Heptane	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 4 Test, 8A PAIR; CA PROP.65: No
68476-86-8	Liquified petroleum gas, sweetened {propane,	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes -

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100-41-4	isobutane, n-butane} Ethylbenzene {Ethylbenzol; Phenylethane}	Inventory; CA PROP.65: No CAA HAP,ODC: HAP; CWA NPDES: Yes; TSCA: Yes - Inventory, 4 Test; CA PROP.65: Yes
112945-52-5	Silica, amorphous treated {Fumed silica}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
1317-65-3	Limestone {Calcium carbonate; Pigment white 18; Lithographic stone}	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

Regulatory Information:

16. OTHER INFORMATION

Revision Date: 04/15/2015

Preparer Name: W.M. Barr EHS Dept (901)775-0100

Additional Information About No data available.

This Product:

Company Policy or

Disclaimer:

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

MATERIAL SAFETY DATA SHEET

SECTION 1	PRODUCT AND COMPANY IDENTIFICATION
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PRODUCT

Product Name: CAT HYDO ADVANCED 10
Product Description: Base Oil and Additives
MSDS Number: 19993
Product Code: 20202050B027
Intended Use: Hydraulic fluid

COMPANY IDENTIFICATION

Supplier: Imperial Oil Products Division
240 4th Avenue
Calgary, ALBERTA, T2P 3M9 Canada
24 Hour Environmental / Health Emergency Telephone 1-866-232-9563
Transportation Emergency Phone Number 1-866-232-9563
Product Technical Information 1-800-268-3183
Supplier General Contact 1-800-567-3776

SECTION 2	COMPOSITION / INFORMATION ON INGREDIENTS
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No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3	HAZARDS IDENTIFICATION
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This material is not considered to be hazardous according to regulatory guidelines see Section 15.

HEALTH EFFECTS

Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.

NFPA Hazard ID:	Health: 0	Flammability: 1	Reactivity: 0
HMIS Hazard ID:	Health: 0	Flammability: 1	Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4	FIRST AID MEASURES
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INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5	FIRE FIGHTING MEASURES
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EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight streams of water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Pressurised mists may form a flammable mixture.

Hazardous Combustion Products: Smoke, Fume, Aldehydes, Sulphur oxides, Incomplete combustion products, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: >200°C (392°F) [Estimated] [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0

Autoignition Temperature: N/D

SECTION 6	ACCIDENTAL RELEASE MEASURES
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NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7	HANDLING AND STORAGE
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HANDLING

Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep away from incompatible materials.

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following is recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction).

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practise good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
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Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Colour: Amber
Odour: Characteristic
Odour Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.81
Flash Point [Method]: >200°C (392°F) [Estimated] [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: N/D
Boiling Point / Range: > 316°C (600°F) [Estimated]
Vapour Density (Air = 1): > 2 at 101 kPa [Estimated]
Vapour Pressure: < 0.013 kPa (0.1 mm Hg) at 20°C [Estimated]
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5 [Estimated]
Solubility in Water: Negligible
Viscosity: 47 cSt (47 mm²/sec) at 40°C | 6.7 cSt (6.7 mm²/sec) at 100°C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
Pour Point: -33°C (-27°F)
DMSO Extract (mineral oil only), IP-346: < 3 %wt
Decomposition Temperature: N/D

SECTION 10	STABILITY AND REACTIVITY
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STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11	TOXICOLOGICAL INFORMATION
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ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
Ingestion	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
Eye	
Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.

CHRONIC/OTHER EFFECTS

Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitising in test animals.

CMR Status: None.

--REGULATORY LISTS SEARCHED--

- | | | |
|-------------|---------------|--------------|
| 1 = IARC 1 | 3 = IARC 2B | 5 = ACGIH A1 |
| 2 = IARC 2A | 4 = ACGIH ALL | 6 = ACGIH A2 |

SECTION 12	ECOLOGICAL INFORMATION
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The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component – Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Base oil component – Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

REGULATORY DISPOSAL INFORMATION

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

LAND (TDG): Not Regulated for Land Transport

LAND (DOT): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

WHMIS Classification: Not controlled

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations.

CEPA: All components of this material are either on the Canadian Domestic Substances List (DSL), exempt, or have been notified under CEPA.

Complies with the following national/regional chemical inventory requirements: AICS, ENCS, IECSC, KECI, PICCS, TSCA

Special Cases:

Inventory	Status
NDSL	Restrictions Apply

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
DIPHENYLAMINE	122-39-4	6
ZINC ALKYL DITHIOPHOSPHATE	68649-42-3	6

--REGULATORY LISTS SEARCHED--

- | | | |
|--------------|-------------|--------------|
| 1 = TSCA 4 | 3 = TSCA 5e | 5 = TSCA 12b |
| 2 = TSCA 5a2 | 4 = TSCA 6 | 6 = NPRI |

SECTION 16	OTHER INFORMATION
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N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

- Section 06: Protective Measures was modified.
- Section 09: Boiling Point C(F) was modified.
- Section 09: Pour Point C(F) was modified.
- Section 09: Vapour Pressure was modified.
- Hazard Identification: Health Hazards was modified.
- Section 11: Dermal Lethality Test Data was modified.
- Section 11: Dermal Lethality Test Comment was modified.
- Section 11: Oral Lethality Test Data was modified.
- Section 11: Inhalation Lethality Test Data was modified.
- Section 11: Dermal Irritation Test Data was modified.
- Section 11: Eye Irritation Test Data was modified.
- Section 11: Oral Lethality Test Comment was modified.
- Section 11: Inhalation Lethality Test Comment was modified.
- Section 11: Dermal Irritation Test Comment was modified.

Section 11: Eye Irritation Test Comment was modified.
Section 11: Inhalation Irritation Test Data was modified.
Section 09: Relative Density - Header was modified.
Section 09: Flash Point C(F) was modified.
Section 09 Viscosity was modified.
Section 09 Viscosity was modified.
Section 14: LAND (TDG) - Header was modified.
Section 15: National Chemical Inventory Listing was modified.
Section 09: Relative Density was modified.
Section 11: Additional Health Information was modified.
Section 08: Exposure limits/standards was modified.
Section 15: Canadian List Citations Table was modified.
Section 01: Company Contact Methods Sorted by Priority was modified.
Section 15: Special Cases - Header was added.
Section 15: Special Cases Table was added.
Section 15: Inventory - Header was added.
Section 15: Status - Header was added.
Section 09: Decomposition Temperature was added.
Section 09: Decomposition Temp - Header was added.
Section 01: Product Code was added.
Section 01: Product Code - Header was added.

WHMIS Classification: Not controlled

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DGN: 7081865 (1012734)

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Prepared by: Imperial Oil Limited, IH and Product Safety

H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source
P251 Pressurized container: Do not pierce or burn, even after use
P261 Avoid breathing dust/fume/gas/mist vapors/spray
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351
+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention.
P301+P310 If Swallowed: Immediately call a poison center or doctor
P304+P340 If Inhaled: Remove person to fresh air and keep comfortable for breathing.
P312 Call a poison center/doctor/ if you feel unwell.
P331 Do not induce vomiting
P302+P352 If on skin: Wash with plenty of soap and water
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage

Response and Storage

P403+P233 Store in well ventilated place Keep container tightly closed.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F
P501 Dispose of contents/container in accordance with local/regional regulations.

3. Composition Information on ingredients

Ingredients	CAS #	Percent
Distillates, petroleum, hydrotreated light	64742-47-8	4-10%
Acetone	67-64-1	40-50%
n-Heptane	142-82-5	15-30%
Toluene	108-88-3	0-2%
Dimethylpolysiloxane	63148-62-9	10-15%
Liquefied Petroleum Gas	68476-86-8	10-20 %

4. First Aid Measures

Eye Contact:

Flush with warm water for 15 minutes. Seek medical attention.

Skin Contact:

- Wash with soap and water. Remove any contaminated clothing and launder before reusing. If irritation persists, seek medical attention.

Inhalation:

Remove exposed individual to fresh air, protecting yourself. Restore breathing if necessary. Contact a physician.

Ingestion:

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

5. Fire Fighting Measures

Flash Point: Flash point of liquid portion < 30°F

Flammable limits in air, % by volume:

Upper: No Information

Lower: No Information

Extinguishing Media:

Dry chemical, carbon dioxide, halon, or foam is recommended. Water spray may be used to cool containers or structures. Halon may decompose into toxic materials and carbon dioxide will displace oxygen, take proper precautions when using these materials.

Unusual Fire & Explosion Hazards:

This material may be ignited by extreme heat, sparks, flames or other ignition sources (static electricity). Vapors are heavier than air and will collect in low areas (sewers) or travel considerable distances. If containers are not cooled in a fire, they may rupture and ignite.

Special Fire Fighting Procedures:

At elevated temperatures (over 130F) aerosol container may burst, vent or rupture; use equipment or shielding to protect personnel. Cooling exposed containers with streams of water may be helpful. Emergency responders should wear self-contained breathing apparatus. Wear other protective gear as conditions warrant. Keep unauthorized people out and try to contain spills or leaks if it can be done safely. Material will float on water, avoid spreading the fire.

6. Accidental Release Measures

Spill or Leak Instructions

Contain spill with dikes of soil or nonflammable absorbent to minimize contaminated area. Avoid run-off into storm sewers and ditches leading to waterways. If required, notify state and local authorities. Place leaking containers in well-ventilated area. Clean up small spills by using a nonflammable absorbent or flushing sparingly with water. Contain larger spills with nonflammable diking or absorbent. Clean up by vacuuming or sweeping.

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Assess the spill situation, as the spill may not evolve large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until spilled product is removed.

7. Handling and Storage

Handling:

Store below 120°F in cool, dry area, out of direct sunlight and away from strong oxidizers. Do not puncture or burst. Use in accordance with good work place practices. Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Decontaminate soiled clothing thoroughly before re-use. Destroy contaminated leather clothing.

Empty containers may contain residues from the product. Treat empty containers with the same precautions as the material last contained. Do not cut, weld or apply heat to empty containers Do not incinerate

Storage:

Store in a cool, dry area, away form heat or direct sunlight. Keep containers closed when not in use. Do not store with incompatible materials

8. Exposure Controls / Personal Protection

Protective Equipment:

Use synthetic gloves if necessary to prevent excessive skin contact. Do not wear contacts and always use ANSI approved safety glasses or splash shield.

Engineering Controls:

General or dilution ventilation is frequently sufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Use a NIOSH approved respirator if ventilation is not adequate to maintain exposures below TLV levels.

Respiratory Protection:

Use adequate ventilation to maintain exposure limits. If the exposure limits of the products or any of its components is exceeded, an approved organic vapor mask should be used (consult your safety equipment supplier). Above exposure levels an approved self-contained breathing apparatus or airline respirator with full face-piece is required

Other Suggested Equipment:

Eye wash station and emergency showers should be available. Spill containment equipment should be available.

Discretion Advised:

We take no responsibility for determining what measures are required for personal protection in any specific application. The general information should be used with discretion.

Exposure guidelines:

Ingredients	CAS #	Percent	Exposure Limits
Liquefied Petroleum Gas	68476-86-10	10-20 %	OSHA (PEL) 1000 ppm ACGIH TLV 1000 ppm
Dimethylpolysiloxane	63148-62-9	10-15	OSHA TVL Oil Mist 5mg/m3
Acetone	67-64-1	40-50%	OSHA (PEL) 1000 ppm ACGIH (TLV) 500 ppm

			ACGIH (STEL) 750 ppm
Distillates, petroleum, hydrotreated light	64742-47-8	4-10%	Supplier Recommended TWA 300ppm
Heptane	142-82-5	15-30 %	OSHA PEL 500 ppm TWA ACGIH TLV 400 ppm TWA
Toluene	108-88-3	1-2%	OSHA (TWA) 200 ppm ACGIH (TLV) 20 ppm

9. Physical and Chemical Properties

Boiling Point: NA
Vapor Density: >1(Air=1)
Odor/Appearance: Clear mist as dispensed from aerosol can.
Evaporation Rate: Ether = 1 Slower

Specific Gravity: <1
Water Solubility: Negligible

10. Stability and Reactivity

Stability: Stable
Incompatibility: Strong-Oxidizing Agents
Hazardous Decomposition: Combustion will produce Carbon Monoxide, Carbon Dioxide and hydrocarbons..
Hazardous Polymerization: Will not occur

Conditions to Avoid: Heat, spark, and open flame

11. Toxicological Information

Component Toxicological Information:

Acute oral toxicity

n-HEPTANE	LD 50 Rat: 17g/kg
toluene	LD 50 Rat 2.6 7.5 g/kg
Acetone	LD50 Rat 5,800 mg/kg

Acute inhalation toxicity

n-HEPTANE	LC 50 Rat: 65-103 g/m ³ , 4 h
Toluene	LC 50 Rat: 8,000 ppm 49 g/m ³ 4h
Acetone	LC50 Rat 76 mg/l 4 h

Acute dermal toxicity

n-HEPTANE	LD 50 Rabbit: 3400 mg/kg
Toluene	LD 50 Rabbit 14 g/kg
Acetone	LD50 > 7,426 mg/kg

Distillates, petroleum, hydrotreated light

Acute Oral	LD50 Rat >5,000 mg/kg
Acute Inhalation	LC50 Rat (4 hour) >6.8 mg/l
Acute dermal	LD50 rabbit: 2,000 – 4,000 mg/kg

Information on Toxicological Effects of Components

n-Heptane

Reproductive Toxicity: No evidence of developmental toxicity was found in pregnant laboratory animals (rats and mice) exposed to high vapor concentrations of unleaded gasoline and petroleum naphthas via inhalation. A two-generation reproductive toxicity study of vapor recovery gasoline did not adversely affect reproductive function or offspring survival and development.

Toluene

Carcinogenicity: Exposure of rats and mice to toluene at concentrations ranging from 120-1200 ppm for two years did not demonstrate evidence of carcinogenicity. Toluene has not been listed as a carcinogen by IARC.

Target Organs: Epidemiology studies suggest that chronic occupational overexposure to toluene may damage color vision. Subchronic and chronic inhalation studies with toluene produced kidney and liver damage, hearing loss and central nervous system (brain) damage in laboratory animals. Intentional misuse by deliberate inhalation of high concentrations of toluene has been shown to cause liver, kidney, and central nervous system damage, including hearing loss and visual disturbances.

Reproductive Toxicity: Exposure to toluene during pregnancy has demonstrated limited evidence of developmental toxicity in laboratory animals. Decreased fetal body weight and increased skeletal variations in both inhalation and oral studies, but only at doses that were maternally toxic. No fetal toxicity was seen at doses that were not maternally toxic. Decreased sperm counts have been observed in male rats in the absence of a reduction in fertility. Toluene has been reported to cause mental or growth retardation in the children of solvent abusers who directly inhale toluene during pregnancy.

12. Ecological Information

Toxicity: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Persistence and Degradability: Heptane is expected to biodegrade in soil based on 100% degradation after 4 and 25 days in screening tests using gasoline contaminated soil and activated sewage sludge, respectively. Based on 100% degradation within 25 days during aerobic biodegradation screening tests, heptane is expected to biodegrade in natural water. Not expected to persist in the environment if spilled or released.

Bioaccumulative Potential: An estimated BCF of 2,000 suggests the potential for bioconcentration in aquatic organisms is very high.

Mobility in Soil: If released to soil, heptane is expected to have no mobility based upon an estimated Koc of 8,200. If released into water, heptane is expected to adsorb to suspended solids and sediment. Expected to have low mobility in soil and sediments with adsorption being the predominant physical process.

13. Disposal Considerations

Do not puncture or burn containers. Give empty, leaking, or full containers to disposal service equipped to handle and dispose of aerosol (pressurized) containers. Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste. See Section 9 - Physical and Chemical Properties.

14. Transport Information

Aerosols (limited quantity),
Class 2.1, ERG 126

AIR (IATA)
Aerosols (limited quantity),
Class 2.1, ERG 126, UN No. 1950
Vessel

Aerosol (Limited Quantity), Class 2.1, UN No 1950

15. Regulatory Information

Environmental Regulations

SARA 302/304:

None

SARA 311/312:

Immediate (x) Delayed () Fire (x) Reactive () Sudden Release of Pressure (x)

Section 313

This product contains:

Toluene 1-4%

California Prop 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

BENZENE

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

BENZENE

TOLUENE

All the chemicals used in this product are TSCA listed.

Check with your local regulators to be sure all local regulations are met.

16. Other Information

Hazard ratings This information is intended solely for the use of individuals trained in the NFPA and/or HMIS systems.

NFPA: Level 3 Aerosol

HMIS: Health: 2 Flammability: 4 Reactivity: 0

RATING: 4-EXTREME 3-HIGH 2-MODERATE 1-SLIGHT 0-INSIGNIFICANT

Note:

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. We make no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. This material may be released from gas, liquid, or solid materials made directly or indirectly from it. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards. Possession of an MSDS does not indicate that the possessor of the MSDS was a purchaser or user of the subject product.

Canadian Krown Dealers Inc.
35 Magnum Dr.
Schomberg, Ontario, L0G 1T0
Canada
(905)939-8750 / 1(800)267-5744

PRODUCT: Krown T40 Rust Inhibitor and Lubricant - 400 g

CODE: KR-002024

SECTION 01: IDENTIFICATION

Product Item Numbers..... KR-002024
Product Identity..... Krown T40 Rust Inhibitor and Lubricant - 400 g
Manufacturer..... Empack Spraytech Inc.
98 Walker Drive
Brampton
Ontario
Canada
L6T 4H6
905-792-6571
24 hour emergency telephone number.... In Canada: Call CANUTEC (613) 996-6666 - In The United States: Call CHEMTREC (800) 424-9300.
Recommended Use..... Lubricant, Penetrant, Rust Inhibitor.
Chemical Family..... Mixture.

SECTION 02: HAZARD IDENTIFICATION



Label Elements:
Signal Word..... DANGER.
Hazard Classification:
Physical Hazards..... Flammable Aerosols - Category 1. Gases Under Pressure - Liquefied Gas .
Health Hazards..... Not Classified.
Environmental Hazards..... Not Classified.
Hazard Statement..... H222:Extremely flammable aerosol (1). H229:Pressurized container: may burst if heated (1). H280:Contains gas under pressure; may explode if heated (L).
Precautionary Statements:
Prevention..... P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211:Do not spray on an open flame or other ignition source. P251:Do not pierce or burn, even after use.
Response..... None .
Storage..... P410+P412:Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F.
P403:Store in a well ventilated place .
Disposal..... P501:Dispose of contents/container in accordance with local, regional, national, and/or international regulations.
Hazard(s) not otherwise classified (HNOC) None Known.
Classified according to:..... Canada's Hazardous Products Act/Hazardous Products Regulations (WHMIS 2015) and Occupational Safety and Health Administration (OSHA).

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	WT. %
Isobutane	75-28-5	10-30
Propane	74-98-6	7-13

SECTION 04: FIRST-AID MEASURES

Inhalation..... If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance.
Skin Contact..... Immediately flush the contaminated skin with soap and water. If this chemical penetrates clothing, immediately remove the clothing and flush the skin with water. If irritation persists after washing, get medical attention .
Eye Contact..... Check for and remove contact lenses. Immediately flush eyes with water for a minimum of 15 minutes keeping eyelids open. Consult a doctor if any irritation occurs.
Ingestion..... If swallowed, call a Poison Control Center or doctor immediately. Do not induce vomiting.
Most important symptoms/effects, acute .. N/A.
and delayed

PRODUCT: Krown T40 Rust Inhibitor and Lubricant - 400 g

CODE: KR-002024

SECTION 04: FIRST-AID MEASURES

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. In case of shortness of breath give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 05: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media..... Dry chemical powder. Carbon dioxide. Foam, water spray or fog.
 Unsuitable Extinguishing Media..... Do not use water jet as an extinguisher, as this will spread the fire.
 Specific Hazards Arising from the Chemical In case of fire, the following can be released: Carbon Oxides (CO, CO₂), Other unidentified Organic Compounds.
 Special Protective Equipment and Precautions for Firefighters Firefighters must use standard protective equipment including flame retardant coat, helmet with water to prevent vapor pressure build up. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Remove undamaged containers from immediate hazard area if it is safe to do.
 General Fire Hazards..... Extremely flammable.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid walking through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 08).
 Methods and Materials for Containment and Cleaning Up Wash with plenty of water.
 Environmental Precautions..... Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

SECTION 07: HANDLING AND STORAGE

Precautions for Safe Handling..... Avoid breathing vapours or mists. Never pierce, drill, grind, cut, saw or weld any empty container. Do not eat or drink while working. See Section 08 for Protective Personal Equipments.
 Conditions for Safe Storage including any Incompatibilities Keep container tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, and flame. Do not store in direct sunlight.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL NIOSH
Isobutane	Not available	1,000 ppm	Not available	Not available	Not available
Propane	Not available	Not available	1,000 ppm	Not available	Not available
Appropriate Engineering Controls.....	Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved. Ensure that eyewash stations and safety showers are available.				
Individual Protection Measures:					
Eye/Face Protection.....	Chemical splash goggles are recommended.				
Skin Protection.....	Use appropriate protective clothing to avoid skin contact if required.				
Respiratory Protection.....	None known.				
Thermal Hazards.....	None Known.				
General Hygiene Considerations.....	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment prior to use.				

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Form..... Aerosol.
 Physical Appearance..... Light Brown.
 Odor..... N/A.
 Odor Threshold (ppm)..... N/A.
 Specific Gravity (Liquid)..... 0.835-0.875.
 Specific Gravity (Aerosol)..... 0.761-0.791.
 Vapour Density (Air=1)..... N/A.
 Aerosol Vapour Pressure (psig, 21°C)..... 70-80.
 pH..... N/A.
 Boiling Point (Propellant), °C..... -31.61 to -11.72.
 Melting / Freezing point (°C), liquid..... -20.

PRODUCT: Krown T40 Rust Inhibitor and Lubricant - 400 g

CODE: KR-002024

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Flash Point (°C), Method..... -104 °C (-156°F). Estimated. (Propellant).
 Flashback..... N/A.
 Evaporation Rate (n-Butyl Acetate = 1)..... N/A.
 VOC Content..... N/A.
 Solubility in water..... Insoluble.
 Auto Ignition Temperature (°C)..... 460°C (860°F). (Isobutane).
 Lower Flammable Limit (% Vol)..... 1.8. (Propellant).
 Upper Flammable Limit (% Vol)..... 9.5. (Propellant).
 Coefficient of Water/Oil Distribution..... N/A.
 Viscosity..... 100 MPa-s. (Liquid).

SECTION 10: STABILITY AND REACTIVITY

Reactivity..... No hazardous reactions.
 Chemical Stability..... Stable under the recommended storage and handling conditions.
 Possibility of Hazardous Reactions..... It may catch fire on contact with oxidizing mineral acids.
 Conditions to Avoid..... Heat, flames, sparks.
 Incompatible Materials..... None known.
 Hazardous Decomposition Products..... In combustion emits toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Isobutane	658 mg/L (Rat - 4hrs)	Not available
Propane	658 mg/L (Rat - 4hrs)	Not available
Information on Likely Routes of Exposure:		
Routes of entry - Inhalation.....	Yes.	
Routes of entry - Skin & Eye.....	No.	
Routes of entry - Ingestion.....	No.	
Routes of entry - Skin Absorption.....	No.	
Symptoms Related to the Physical, Chemical and Toxicological Characteristics		
Acute Toxicity.....	N/A.	
Skin Corrosion/Irritation.....	May cause mild skin irritation.	
Serious Eye Damage/Eye Irritation.....	May irritate eyes.	
Respiratory or Skin Sensitization.....	N/A.	
Germ Cell Mutagenicity.....	No data available to indicate product or any components present at greater than 0.1% are mutagenic.	
Carcinogenicity.....	N/A.	
Reproductive Toxicity.....	Based on available data, the classification criteria are not met.	
STOT - Single Exposure.....	No data available .	
STOT - Repeated Exposure.....	No data available .	
Aspiration Hazard.....	No data available .	
Chronic Effects.....	No known adverse effects .	

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity..... May be dangerous for the environment. No data is available on the product itself. Should not be released into the environment.
 Persistence and degradability..... The product itself has not been tested.
 Bioaccumulation Potential..... The product itself has not been tested.
 Mobility in Soil..... The product itself has not been tested.
 Other Adverse Effects..... None Known.

SECTION 13: DISPOSAL CONSIDERATIONS

Appropriate Disposal Methods..... This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Spilled material and water rinses are classified as chemical waste and must be disposed of in accordance with current local, provincial and federal regulations.

SECTION 14: TRANSPORT INFORMATION

TDG (Canada- Road)..... UN1950, AEROSOLS, Class 2.1.
 DOT (US-Road)..... UN1950, AEROSOLS, Class 2.1, LTD QTY, Consumer Commodity ORM-D.
 IMDG (International- Marine)..... UN1950, AEROSOLS, Class 2.1.
 IATA (International- Air)..... UN1950, AEROSOLS, Class 2.1, LTD QTY.

PRODUCT: Krown T40 Rust Inhibitor and Lubricant - 400 g

CODE: KR-002024

SECTION 15: REGULATORY INFORMATION

Canada Regulations:..... WHMIS Classification, A: Compressed gas. B5: Flammable aerosol.
Canadian Environmental Protection Act ... All ingredients listed appear on the Domestic Substances List (DSL).
(CEPA)
US Regulations..... Environmental Protection Act: Constituents of this product are included on the TSCA
inventory. This product is considered hazardous under the OSHA Hazard Communication
Standard.

SECTION 16: OTHER INFORMATION

Disclaimer..... The information contained herein is based on data considered accurate. No guarantee or
warranty is expressed or implied regarding the accuracy of this data or the results obtained
from the use thereof. The SDS provider assumes no responsibility for personal injury or
property damage to vendors or users or third parties, caused by the material. Such vendors
or users assume all risks with the use of the material. This product has been classified in
accordance with the hazard criteria of the CPR and the SDS contains all the information
required by the CPR. .

Abbreviations..... ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical
Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA:
Occupational Safety and Health Administration- USA; TSCA: Toxic Substances Control Act
1976-USA; PEL: Permissible Exposure Limit; REL: Recommended Exposure Limit; TLV:
Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous
Materials Information System STOT: Specific Target Organ Toxicity.

Prepared by Regulatory Affairs
Latest Revision OCT 04/2018



Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier

3M™ Lens Polish & Protector, 39010

Product Identification Numbers

60-4550-5555-2

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Removes minor imperfections from automotive plastic surfaces.

1.3. Supplier's details

ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor
Telephone: 03-7884 2888
E Mail: 3mmyehsr@mmm.com
Website: www.3M.com.my

1.4. Emergency telephone number

+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Chronic Aquatic Toxicity: Category 3.

2.2. Label elements

Signal word

Not applicable.

Symbols

Not applicable.

Pictograms

Not applicable

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Hazard Statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

General:

P102 Keep out of reach of children.
P101 If medical advice is needed, have product container or label at hand.

Disposal:

P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	60 - 80
Hydrotreated Light Petroleum Distillates	64742-47-8	7 - 13
Kaolin, calcined	92704-41-1	5 - 10
Amino Alkyl Polysiloxane	Trade Secret	1 - 5
Poly(dimethylsiloxane)	63148-62-9	0.5 - 1.5
Triethanolamine	102-71-6	0.1 - 1
Titanium Dioxide	13463-67-7	< 0.5

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

No need for first aid is anticipated.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed. Keep from freezing. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Triethanolamine	102-71-6	ACGIH	TWA:5 mg/m3	

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Triethanolamine	102-71-6	Malaysia OELs	TWA(8 hours):5 mg/m ³	
Titanium Dioxide	13463-67-7	ACGIH	TWA:10 mg/m ³	A4: Not class. as human carcin
Titanium Dioxide	13463-67-7	Malaysia OELs	TWA(8 hours):10 mg/m ³	
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-acrosol):200 mg/m ³	A3: Confirmed animal carcin., SKIN

ACGIH : American Conference of Governmental Industrial Hygienists

CMRG : Chemical Manufacturer's Recommended Guidelines

Malaysia OELs : Malaysia, Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance/Odor	Solvent odor, White color
Odor threshold	No Data Available
pH	7.5 - 8.5
Melting point/Freezing point	No Data Available
Boiling point/Initial boiling point/Boiling range	100 °C
Flash Point	> 100 °C [Test Method: Closed Cup]
Evaporation rate	No Data Available
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	No Data Available
Flammable Limits(UEL)	No Data Available

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Vapor Pressure	2,399.8 Pa [@ 20 °C]
Vapor Density	No Data Available
Density	1.05 - 1.1 g/ml
Relative Density	1.05 - 1.1 [Ref Std: WATER=1]
Water solubility	Appreciable
Solubility- non-water	No Data Available
Partition coefficient: n-octanol/ water	No Data Available
Autoignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	18,000 - 28,000 mPa-s
Molecular weight	No Data Available
Volatile Organic Compounds	0.2 % weight [Test Method:calculated per CARB title 2]
Volatile Organic Compounds	114 g/l [Test Method:calculated SCAQMD rule 443.1]
Percent volatile	87.3 % weight
VOC Less H2O & Exempt Solvents	671 g/l [Test Method:calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids

Strong oxidizing agents

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
------------------	------------------

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

3M™ Lens Polish & Protector, 39010**Inhalation:**

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:

Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:**Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Hydrotreated Light Petroleum Distillates	Dermal	Rabbit	LD50 > 3,160 mg/kg
Hydrotreated Light Petroleum Distillates	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 3 mg/l
Hydrotreated Light Petroleum Distillates	Ingestion	Rat	LD50 > 5,000 mg/kg
Kaolin, calcined	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Kaolin, calcined	Ingestion	Rat	LD50 > 2,000 mg/kg
Poly(dimethylsiloxane)	Dermal	Rabbit	LD50 > 19,400 mg/kg
Poly(dimethylsiloxane)	Ingestion	Rat	LD50 > 17,000 mg/kg
Triethanolamine	Dermal	Rabbit	LD50 > 2,000 mg/kg
Triethanolamine	Ingestion	Rat	LD50 9,000 mg/kg
Titanium Dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Hydrotreated Light Petroleum Distillates	Rabbit	Mild irritant
Poly(dimethylsiloxane)	Rabbit	No significant irritation
Triethanolamine	Rabbit	Minimal irritation
Titanium Dioxide	Rabbit	No significant irritation

Serious Eye Damage/Irritation

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Name	Species	Value
Hydrotreated Light Petroleum Distillates	Rabbit	Mild irritant
Poly(dimethylsiloxane)	Rabbit	No significant irritation
Triethanolamine	Rabbit	Mild irritant
Titanium Dioxide	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Hydrotreated Light Petroleum Distillates	Guinea pig	Not classified
Triethanolamine	Human	Not classified
Titanium Dioxide	Human and animal	Not classified

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Hydrotreated Light Petroleum Distillates	In Vitro	Not mutagenic
Triethanolamine	In Vitro	Not mutagenic
Triethanolamine	In vivo	Not mutagenic
Titanium Dioxide	In Vitro	Not mutagenic
Titanium Dioxide	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Hydrotreated Light Petroleum Distillates	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Triethanolamine	Dermal	Multiple animal species	Not carcinogenic
Triethanolamine	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
Titanium Dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium Dioxide	Inhalation	Rat	Carcinogenic

Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Triethanolamine	Ingestion	Not classified for development	Mouse	NOAEL 1,125 mg/kg/day	during organogenesis

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Hydrotreated Light Petroleum Distillates	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Hydrotreated Light Petroleum Distillates	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for		NOAEL Not available	

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			classification			
Hydrotreated Light Petroleum Distillates	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Notavailable	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Triethanolamine	Dermal	kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,000 mg/kg/day	2 years
Triethanolamine	Dermal	liver	Not classified	Mouse	NOAEL 4,000 mg/kg/day	13 weeks
Triethanolamine	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,000 mg/kg/day	2 years
Triethanolamine	Ingestion	liver	Not classified	Guinea pig	NOAEL 1,600 mg/kg/day	24 weeks
Titanium Dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium Dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name	Value
Hydrotreated Light Petroleum Distillates	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labeling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity**Acute aquatic hazard:**

GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:

GHS Chronic 3: Harmful to aquatic life with long lasting effects

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Hydrotreated Light Petroleum Distillates	64742-47-8	Green Algae	Estimated	72 hours	Effect Concentration 50%	1 mg/l
Hydrotreated Light Petroleum	64742-47-8	Rainbow Trout	Estimated	96 hours	Lethal Level 50%	2 mg/l

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Distillates						
Hydrotreated Light Petroleum Distillates	64742-47-8	Water flea	Estimated	48 hours	Effect Level 50%	1.4 mg/l
Hydrotreated Light Petroleum Distillates	64742-47-8	Green Algae	Estimated	72 hours	No obs Effect Level	1 mg/l
Hydrotreated Light Petroleum Distillates	64742-47-8	Water flea	Estimated	21 days	No obs Effect Level	0.48 mg/l
Kaolin, calcined	92704-41-1	Green algae	Estimated	72 hours	Effect Concentration 50%	2,500 mg/l
Kaolin, calcined	92704-41-1	Water flea	Estimated	48 hours	Effect Concentration 50%	>100 mg/l
Kaolin, calcined	92704-41-1	Zebra Fish	Estimated	96 hours	Lethal Concentration 50%	>100 mg/l
Kaolin, calcined	92704-41-1	Green algae	Estimated	72 hours	Effect Concentration 10%	41 mg/l
Kaolin, calcined	92704-41-1	Rainbow Trout	Estimated	30 days	No obs Effect Conc	>100 mg/l
Poly(dimethylsiloxane)	63148-62-9		Data not available or insufficient for classification			
Triethanolamine	102-71-6	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	11,800 mg/l
Triethanolamine	102-71-6	Green algae	Experimental	72 hours	Effect Concentration 50%	512 mg/l
Triethanolamine	102-71-6	Water flea	Experimental	48 hours	Effect Concentration 50%	609.98 mg/l
Triethanolamine	102-71-6	Green Algae	Experimental	72 hours	Effect Concentration 10%	26 mg/l
Triethanolamine	102-71-6	Water flea	Experimental	21 days	No obs Effect Conc	16 mg/l
Titanium Dioxide	13463-67-7	Diatom	Experimental	72 hours	Effect Concentration 50%	>10,000 mg/l
Titanium Dioxide	13463-67-7	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	>100 mg/l
Titanium Dioxide	13463-67-7	Water flea	Experimental	48 hours	Effect Concentration 50%	>100 mg/l
Titanium	13463-67-7	Diatom	Experimental	72 hours	No obs Effect	5,600 mg/l

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Dioxide					Conc	
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12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Hydrotreated Light Petroleum Distillates	64742-47-8	Data not available - insufficient			N/A	
Kaolin, calcined	92704-41-1	Data not available - insufficient			N/A	
Poly(dimethylsiloxane)	63148-62-9	Data not available - insufficient			N/A	
Triethanolamine	102-71-6	Experimental Biodegradation	19 days	Dissolv. Organic Carbon Deplet	96 % weight	Other methods
Titanium Dioxide	13463-67-7	Data not available - insufficient			N/A	

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Hydrotreated Light Petroleum Distillates	64742-47-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Kaolin, calcined	92704-41-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Poly(dimethylsiloxane)	63148-62-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Triethanolamine	102-71-6	Experimental BCF-Carp	42 days	Bioaccumulation Factor	<3.9	Other methods
Titanium Dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation Factor	9.6	Other methods

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available

SECTION 13: Disposal considerations**13.1. Disposal methods**

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and

disposal.

SECTION 14: Transport Information

Not hazardous for transportation.

Marine Transport (IMDG)

UN Number:None assigned.

Proper Shipping Name:None assigned.

Technical Name:None assigned.

Hazard Class/Division:None assigned.

Subsidiary Risk:None assigned.

Packing Group:None assigned.

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

UN Number:None assigned.

Proper Shipping Name:None assigned.

Technical Name:None assigned.

Hazard Class/Division:None assigned.

Subsidiary Risk:None assigned.

Packing Group:None assigned.

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA. This product

3M™ Lens Polish & Protector, 39010

complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

SECTION 16: Other information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Malaysia SDSs are available at www.3M.com.my

SAFETY DATA SHEET

NAPA MAC's Pumice Lotion Citrus Orange Hand Cleaner

Section 1: Product and Company Identification:

Product Name: NAPA MAC'S Pumice Lotion Citrus Orange Hand Cleaner
Product Use: Heavy-Duty Hand Cleaner
Part's: 5115, 5125
Manufacture/Supplier: Aiken Chemical Company, Inc.
P.O. Box 27147, Greenville, SC 29616
12 Shelter Drive, Greer, SC 29650
Phone Number: (864) 968-1250
1-800-828-1860
Emergency Phone: 1-800-424-9300
Date of Preparation: November 6, 2015

Section 2: Hazards Identification:

Hazard Determination System (HDS): Health, Flammability, Reactivity



Emergency Overview:
Warning: May Cause irritation to the eyes.
Potential Health Effects: See Section 11 for more information.
Likely Routes of Exposure: Eye contact, ingestion.
Eye: May irritate eyes. Can cause redness or tearing
Skin: May cause skin sensitization
Ingestion: Could irritate gastrointestinal tract
Inhalation: None.
Potential Environmental Effects: See Section 12 for more information.

Section 3: Composition / Information on Ingredients:

Ingredient	CAS#	Percent
D-Limonene	5989-27-5	0.1 - 1.0
Sodium Hydroxide	1310-73-2	0.1 - 1.0

Section 4: First Aid Measures:

Eye Contact: Remove contact lenses if present. Immediately flush eyes with large amounts of water for at least 15 minutes, lifting upper and lower eyelids periodically to insure complete flushing. Seek medical attention immediately
Skin Contact: Flush with water
Inhalation: Remove individual to fresh air.
Ingestion: DO NOT induce vomiting. If conscious, dilute by giving 2-3 glasses of water. Seek medical attention immediately

Section 5: Fire Fighting Measures:

Flammability: Not Flammable by WHMIS/OSHA Criteria.
Means of Extinguishing:
Suitable extinguishing media: Use water fog, alcohol foam, carbon dioxide or dry chemical.
Unsuitable Extinguishing Media: Not Available.
Products of Combustion: Not Available.
Explosion Data:
Sensitivity to Mechanical Impact: Not Available.
Sensitivity to Static Discharge: Not Available.
Protection of Firefighters: Keep Upwind of fire. Wear full fire-fighting turn-out gear, (full Bunker gear), and respiratory protection (SCBA)

Section 6: Accidental Release Measures:

Personal Precautions: Use personal protection recommended in section 8.
Environmental Precautions: Not Available.
Methods for Containment: Contain and/or absorb spill with inert material, (e.g. sand, vermiculite), then place in a suitable container. Use appropriate Personal Protective Equipment, (PPE).
Methods for Clean-up: Dispose of in accordance with all local, state and federal regulations.

SAFETY DATA SHEET

NAPA MAC's Pumice Lotion Citrus Orange Hand Cleaner

Other Information: Not Available.

Section 7: Handling and Storage:

Handling: Store above freezing and no more than 100 degrees F. If frozen, allow to thaw and mix thoroughly.

Storage: Avoid freezing if possible and temperatures more than 100°F

Section 8: Exposure Controls/Personal Protections:

Exposure Guidelines:

Ingredient

Exposure Limits

	OSHA-PEL	ACGIH-TLV	Other Limits	Percent
Sodium Hydroxide:	2 mg/m ³ (TWA)	2 mg/m ³ (Ceiling)		0.1 - 1.0
Engineering Controls:	NA			

Personal Protective Equipment:

Eye/Face Protection: Not Required

Hand Protection: Not Required

Skin and Body Protection: Not Required

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices.

Section 9: Physical and Chemical Properties:

Appearance and Odor:	White translucent gel, Citrus odor
Physical State:	Gel
pH:	6.0 – 7.0
Freezing Point:	~0°C (~32°F)
Boiling Point:	~100°C (~212°F)
Flash Point (Method Used):	>215°F (PMCC)
Evaporation Rate (Butyl Acetate= 1) :	Not Determined
LEL:	Not Determined
UEL:	Not Determined
Vapor Pressure (mm Hg.):	Not Determined
Vapor Density (AIR=1):	Not Determined
Specific Gravity:	1.03
Solubility In Water:	Complete
Melting Point:	NA
Auto-Ignition Temperature:	Not Determined
Percent Volatile, wt%:	< 1%
VOC content, wt. %:	< 1%

Section 10: Stability and Reactivity:

Stability:	Stable under normal storage conditions.
Conditions to Avoid:	Freezing and Temperatures > 100°F
Incompatibility (Materials to Avoid):	None Known.
Hazardous Decomposition or Byproducts:	Oxides of Carbon
Hazardous Polymerization:	Will Not Occur.

Section 11: Toxicology Information:

Effects of Acute Exposure	
Component Analysis:	Not Available

Section 12: Ecological Information:

Ecotoxicity:	Not Available
Persistence/Degradability:	Not Available
Bioaccumulation/Accumulation:	Not Available
Mobility in Environment:	Not Available

SAFETY DATA SHEET

NAPA MAC's Pumice Lotion Citrus Orange Hand Cleaner

Section 13: Disposal Considerations:

Disposal Instructions: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Section 14: Transportation Information:

Proper Shipping Name: Not D.O.T. Regulated
Hazard Class: N/A
ID Number: N/A
Packing Group N/A
IATA: N/A

Section 15: Regulatory Information:

Chemical Inventories:

TSCA: All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

SARA Section 311: Hazard Category: NA

SARA Section 313: Toxic Release Inventory Chemical: NA

California Safe Drinking Water Enforcement Act (Prop 65): NA

Pennsylvania (Worker and Community Right-to-Know act):

Pennsylvania Special Hazardous Substance List and/or Pennsylvania Environmental Hazardous Substance list: This material contains the following components that appear on the PA list:

Component	CAS#	Amount
Sodium Hydroxide	1310-73-2	0.1 - 1.0%

New Jersey Right-to-Know Hazardous Substance List:

This material contains the following components that appear on the NJ list:

Component	CAS#	Amount
Sodium Hydroxide	1310-73-2	0.1 - 1.0%

Massachusetts Substance List: This material contains the following components that appear on the MA list:

Component	CAS#	Amount
Sodium Hydroxide	1310-73-2	0.1 - 1.0%

Section 16: Other Information:

NFPA	Health Hazard	Flammability	Instability	Physical & Chemical Hazards
	1	0	0	NA
HMIS	Health Hazard	Flammability	Physical Hazard	Personal Protection
	1	0	0	NA

Prepared By: Aiken Chemical Company, Inc.
12 Shelter Drive
Greer, SC 29650

Preparation/Revision Date: November 6, 2015

Revision Date:

General Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SAFETY DATA SHEET

1. Identification

Product number 1000036030
Product Identifier **MAC'S SILICONE SPRAY**
Company information NAPA BALKAMP
2601 Stout Heritage Parkway
Plainfield, IN 46168 United States
Company phone General Assistance 1-317-754-3900
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 01
Recommended use LUBRICANT
Recommended restrictions None known.

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Health hazards Serious eye damage/eye irritation Category 2A
Specific target organ toxicity, single exposure Category 3 narcotic effects
Aspiration hazard Category 1
OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes serious eye irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye protection/face protection.

Response If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 2

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetone		67-64-1	20 - 40
Butane		106-97-8	20 - 40
Naphtha, (Petroleum), Hydrotreated Light		64742-49-0	10 - 20
n-Heptane		142-82-5	2.5 - 10
Propane		74-98-6	2.5 - 10
Methylcyclohexane		108-87-2	1 - 2.5
Other components below reportable levels			2.5 - 10

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm
Methylcyclohexane (CAS 108-87-2)	PEL	2000 mg/m3 500 ppm
n-Heptane (CAS 142-82-5)	PEL	2000 mg/m3 500 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Butane (CAS 106-97-8)	STEL	1000 ppm
Methylcyclohexane (CAS 108-87-2)	TWA	400 ppm
n-Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3 250 ppm
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Methylcyclohexane (CAS 108-87-2)	TWA	1600 mg/m3 400 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
n-Heptane (CAS 142-82-5)	Ceiling	1800 mg/m ³
	TWA	440 ppm
Propane (CAS 74-98-6)	TWA	350 mg/m ³
		85 ppm
		1800 mg/m ³
		1000 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	

* - For sampling details, please see the source document.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear suitable protective clothing.

Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state Gas.

Form Aerosol.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range 163.9 °F (73.28 °C) estimated

Flash point -156.0 °F (-104.4 °C) PROPELLANT estimated

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 2 % estimated

Flammability limit - upper (%) 10.7 % estimated

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 36 psig @70F estimated
74 psig @122F estimated

Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0.76 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Nitrates. Fluorine. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Guinea pig	> 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours
	Rabbit	> 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours
Inhalation		
LC50	Rat	55700 ppm, 3 Hours 132 mg/l, 3 Hours 50.1 mg/l
Oral		
LD50	Rat	5800 mg/kg 2.2 ml/kg

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l
Methylcyclohexane (CAS 108-87-2)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
Inhalation		
<i>Vapor</i>		
LC100	Rabbit	59.9 mg/l
LC50	Dog	> 4071 ppm, If <1L: Consumer Commodity Hours
		> 16.3 mg/l, If <1L: Consumer Commodity Hours
	Mouse	> 6564 ppm, If <1L: Consumer Commodity Hours
		> 26.3 mg/l, If <1L: Consumer Commodity Hours
	Rat	> 6564 ppm, If <1L: Consumer Commodity Hours
		> 26.3 mg/l, If <1L: Consumer Commodity Hours
LC50	Rat	16 mg/l, 4 Hours
Naphtha, (Petroleum), Hydrotreated Light (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Guinea pig; Rabbit	> 9.4 ml/kg, 24 Hours
	Rabbit	> 1900 mg/kg, 24 Hours
Inhalation		
LC50	Rat	> 5000 mg/m3, 4 Hours
		> 4980 mg/m3
		> 4980 mg/m3, 4 Hours
		> 4.96 mg/l, 4 Hours
		13700 ppm, 4 Hours
Oral		
LD50	Rat	4820 mg/kg
n-Heptane (CAS 142-82-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Rat	> 29.29 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg

Components	Species	Test Results
Propane (CAS 74-98-6)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l
		658 mg/l/4h

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna)
		21.6 - 23.9 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)
		4740 - 6330 mg/l, 96 hours
Methylcyclohexane (CAS 108-87-2)		
Aquatic		
Fish	LC50	Striped bass (Morone saxatilis)
		5.8 mg/l, 96 hours
n-Heptane (CAS 142-82-5)		
Aquatic		
Fish	LC50	Mozambique tilapia (Tilapia mossambica)
		375 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Acetone	-0.24
Butane	2.89

Partition coefficient n-octanol / water (log Kow)	
Methylcyclohexane	3.61
n-Heptane	4.66
Propane	2.36

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

DOT

UN number UN1950

UN proper shipping name Aerosols, flammable, (each not exceeding 1 L capacity)

Transport hazard class(es)

Class	2.1
Subsidiary risk	-
Label(s)	2.1

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions N82

Packaging exceptions 306

Packaging non bulk None

Packaging bulk None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking.

IATA

UN number UN1950

UN proper shipping name Aerosols, flammable

Transport hazard class(es)

Class	2.1
Subsidiary risk	-
Label(s)	2.1

Packing group Not applicable.

Environmental hazards Yes

ERG Code 10L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

Packaging Exceptions LTD QTY

IMDG

UN number UN1950

UN proper shipping name AEROSOLS

Transport hazard class(es)

Class 2.1
Subsidiary risk -
Label(s) None
Packing group Not applicable.

Environmental hazards

Marine pollutant Yes
EmS F-D, S-U

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Packaging Exeptions LTD QTY

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

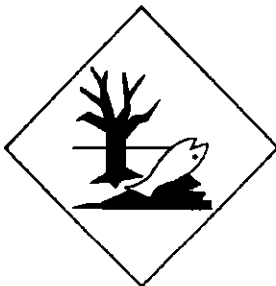
DOT



IATA; IMDG



Marine pollutant



General Information

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Butane (CAS 106-97-8)

Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1) 6532

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1) 6532

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Acetone (CAS 67-64-1)

Butane (CAS 106-97-8)

Naphtha, (Petroleum), Hydrotreated Light (CAS 64742-49-0)

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)

Butane (CAS 106-97-8)

Methylcyclohexane (CAS 108-87-2)

n-Heptane (CAS 142-82-5)

Propane (CAS 74-98-6)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)

Butane (CAS 106-97-8)

Methylcyclohexane (CAS 108-87-2)

n-Heptane (CAS 142-82-5)

Propane (CAS 74-98-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)

Butane (CAS 106-97-8)

Methylcyclohexane (CAS 108-87-2)

n-Heptane (CAS 142-82-5)

Propane (CAS 74-98-6)

US. Rhode Island RTK

Acetone (CAS 67-64-1)

Butane (CAS 106-97-8)

Propane (CAS 74-98-6)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2) Listed: February 27, 1987
Ethyl Benzene (CAS 100-41-4) Listed: June 11, 2004

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997
Toluene (CAS 108-88-3) Listed: January 1, 1991

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 01-10-2019

Version # 01

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information Product and Company Identification: Alternate Trade Names

1 Identification of the substance and manufacturer

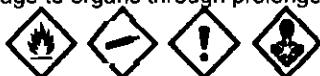
Trade name: STRIPE HIGH VISIBILITY YELLOW
Product code: 0000160676
Product category: PC9a Paints and coatings.
Manufacturer/Supplier: Seymour of Sycamore
 917 Crosby Avenue
 Sycamore, IL 60178
 phone: 815-895-9101
 www.seymourpaint.com
Emergency telephone number: CHEMTEL 1-800-255-3924, or 813-248-0585.

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Aerosol 1 H222 Extremely flammable aerosol.
 Press. Gas H280 Contains gas under pressure; may explode if heated.
 STOT SE 3 H335 May cause respiratory irritation.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS Hazard pictograms



GHS02 GHS04 GHS07 GHS08

Signal word

Hazard statements

Danger
 Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 May cause respiratory irritation.
 May cause damage to organs through prolonged or repeated exposure.
Precautionary statements
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Do not spray on an open flame or other ignition source.
 Do not pierce or burn, even after use.
 Use only outdoors or in a well-ventilated area.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER/doctor if you feel unwell.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 Protect from sunlight. Store in a well-ventilated place.
 Store in a well-ventilated place. Keep container tightly closed.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:

64742-89-8	VM&P Naphtha	19.21%
1317-65-3	Calcium Carbonate	14.73%
74-98-6	propane	12.59%
106-97-8	n-butane	7.4%
64742-47-8	Mineral Spirits	4.49%
13463-67-7	titanium dioxide	1.74%

4 First-aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water.
 Rinse mouth with water. Do not induce vomiting.

Most important symptoms and effects:

Dizziness

Indication of any immediate medical attention needed:

No further relevant information available.

5 Fire-fighting measures

Extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray.
Special hazards: Can form explosive gas-air mixtures.
Protective equipment for firefighters: A respiratory protective device may be necessary.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures:
 Wear protective equipment. Keep unprotected persons away.
 Use respiratory protective device against the effects of fumes/dust/aerosol.

Trade name: STRIPE HIGH VISIBILITY YELLOW

(Contd. of page 1)

Methods and material for containment and cleaning up: Ensure adequate ventilation.

7 Handling and storage

Precautions for safe handling Use only in well ventilated areas.
Storage requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up.

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

74-98-6 propane

REL (United States GHS) Long-term value: 1800 mg/m³, 1000 ppm
 REL (United States GHS) Long-term value: 1800 mg/m³, 1000 ppm
 TLV (United States GHS) refer to Appendix F in TLVs&BEIs book; NIC-EX

106-97-8 n-butane

REL (United States GHS) Long-term value: 1900 mg/m³, 800 ppm
 TLV (United States GHS) Short-term value: (2370) mg/m³, (1000) ppm
 NIC-EX

Hygienic protection: Keep away from foodstuffs and animal feed. Wash hands after use.
 Wash hands after use.
 Do not eat or drink while working.
Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure exists, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.
Hand protection: Nitrile gloves.
 Protective gloves. The glove material must be impermeable and resistant to the substance.
Eye protection: Tightly sealed goggles

9 Physical and chemical properties

Appearance: Aerosol.
Odor: Aromatic
Odor threshold: Not determined.
pH-value: Not determined.
Melting point/Melting range Undetermined.
Boiling point: -44 °C (-47 °F)
Flash point: -19 °C (-2 °F)
Flammability (solid, gas): Extremely flammable.
Decomposition temperature: Not determined.
Auto igniting: Product is not self-igniting.
Danger of explosion: In use, may form flammable/explosive vapour-air mixture.
Lower Explosion Limit: 1.7 Vol %
Upper Explosion Limit: 10.9 Vol %
Vapor pressure: Not determined.
Relative Density: Between 0.77 and 0.85 (Water equals 1.00)
Vapor density Not determined.
Evaporation rate Not applicable.
Partition coefficient: n-octanol/water: Not determined.
Solubility: Not determined.
Viscosity: Not determined.
VOC content (less exempt solvents): 45.1 %
Water: 28.6 %
Solids content: 25.1 %

10 Stability and reactivity

Reactivity: Stable at normal temperatures.
Conditions to avoid: Do not allow can to exceed 120 degrees Fahrenheit. Do not warehouse in subfreezing temperatures.
Chemical stability: Not fully evaluated.
Possibility of hazardous reactions: No dangerous reactions known.
Incompatible materials: No further relevant information available.
Hazardous decomposition: No dangerous decomposition products known.

11 Toxicological information

LD/LC50 values that are relevant for classification:

106-97-8 n-butane

Inhalative LC50/4 h | 658 mg/l (rat)

13463-67-7 titanium dioxide

Trade name: STRIPE HIGH VISIBILITY YELLOW

(Contd. of page 2)

Dermal	LD50	>10000 mg/kg (rbt)
Inhalative	LC50/4 h	>6.82 mg/l (rat)

Information on toxicological effects: No data available.
Skin effects: No irritant effect.
Eye effects: No irritating effect.
Sensitization: No sensitizing effects known.

Carcinogenic categories**IARC (International Agency for Research on Cancer)**

13463-67-7 titanium dioxide

2B

NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

Aquatic toxicity: Hazardous for water, do not empty into drains.
Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Other adverse effects: No further relevant information available.

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Completely empty cans should be recycled.

14 Transport information

UN-Number	UN1950
DOT	N/A
DOT	UN1950
ADR	Consumer Commodity ORM-D
Transport hazard class(es):	Aerosols, flammable
Class	1950 Aerosols
Marine pollutant:	2.1
Special precautions for user:	No
EMS Number:	Warning: Gases
Packaging Group:	F-D,S-U
UN "Model Regulation":	-
	UN1950, Aerosols, 2.1

15 Regulatory information**SARA Section 355 (extremely hazardous substances):**

None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.**California Proposition 65 chemicals known to cause cancer:**

13463-67-7 titanium dioxide

100-41-4 ethyl benzene

**CANADIAN ENVIRONMENTAL PROTECTION ACT:
WHMIS Symbols for Canada:**All hazardous ingredients for this product appear on the Canadian Domestic Substance List.
A - Compressed gas**EPA:**

None of the ingredients is listed.

16 Other information

Contact: Regulatory Affairs
Date of preparation / last revision 11/11/2016 / -




SAFETY DATA SHEET

1. Product and Company Identification

PRODUCT NUMBER:	3461	COMPANY PHONE:	1-800-241-8180
PRODUCT NAME:	MEAN GREEN	EMERGENCY TELEPHONE:	1-800-241-8180
PRODUCT DESCRIPTION:	Granular Snow And Ice Melting Compound	INFOTRAC:	1-800-535-5053
COMPANY INFORMATION:	PRO CHEM, INC. 1475 Bluegrass Lakes Parkway Alpharetta, GA 30004		

2. Hazards Identification

GHS CLASSIFICATION: Not a substance that is controlled by GHS.	SIGNAL WORD: Not classified.	SYMBOL:	NOT A CONTROLLED PRODUCT UNDER GHS 
HAZARDS NOT OTHERWISE SPECIFIED: No additional information available.			

3. Composition / Information on Ingredients

Not applicable.
Full text of H-phrases: see Section 16

4. First Aid Measures

EMERGENCY OVERVIEW

GENERAL: If you feel unwell, seek medical advice (show the label where possible).

EYES: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing.

SKIN: Rinse skin with water/shower.

INHALATION:

Remove the victim into fresh air.

INGESTION:

Rinse mouth with water. Do NOT induce vomiting.

MOST IMPORTANT SYMPTOMS AND EFFECTS (both acute and delayed):

Symptoms/injuries: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/injuries after inhalation: None under normal use.

Symptoms/injuries after skin contact: Contact during a long period may cause light irritation.

Symptoms/injuries after eye contact: Direct contact with the eyes is likely irritating.

Symptoms/injuries after ingestion: Gastrointestinal complaints.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

No additional information available.

5. Fire-Fighting Measures

SUITABLE FIRE EXTINGUISHING MEDIA:

All extinguishing media allowed.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

Upon combustion: CO and CO₂ are formed.

SPECIFIC FIRE-FIGHTING METHODS:

Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:

Do not enter fire area without proper protective equipment, including respiratory protection.

6. Accidental Release Measures

PERSONAL PRECAUTIONS:

For non-emergency personnel: Isolate from fire, if possible without unnecessary risk. Protective goggles. Gloves. Protective clothing. Evacuate unnecessary personnel. Avoid contact with skin, eyes, and clothing. Ventilate spillage area.

For emergency responders: Equip cleanup crew with proper protection. Stop leak, if safe to do so. Stop release. Ventilate area.

ENVIRONMENTAL PRECAUTIONS AND CLEAN-UP METHODS:

Avoid release to the environment. Prevent entry to sewers and public waters. Contain released substance, pump into suitable containers. This material and its container must be disposed of in a safe way and as per local legislation.

REFERENCE TO OTHER SECTIONS:

No additional information available.

7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink, or smoke when using this product. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse.

CONDITIONS FOR SAFE STORAGE (including any incompatibilities):

Technical measures: Comply with applicable regulations.

Storage conditions: Keep container closed when not in use.

Storage area: Meet the legal requirements. Store in a cool area. Store in a well-ventilated place.
Special rules on packaging: Meet the legal requirements.

8. Exposure Controls / Personal Protection

CONTROL PARAMETERS:

No additional information available.

EXPOSURE CONTROLS:

Use appropriate personal protective equipment when risk assessment indicates this is necessary.

9. Physical & Chemical Properties

Appearance:		Flammability(solid/gas):	No data available.
Physical State:	Solid.	Boiling Point:	2732°F
Form:	Granules.	Flash Point:	No data available.
Color:	Green	Explosive Limits:	No data available.
Odor:	No odor.	Explosive Properties:	No data available.
Odor Threshold:	No data available.	Vapor Pressure:	No data available.
pH:	No data available.	Log Pow:	No data available.
Melting Point:	No data available.	Relative Density:	No data available.
Freezing Point:	No data available.	Solubility (water):	Soluble in water.
Log Kow:	No data available.	Auto-Ignition Temperature:	No data available.
Viscosity:	No data available.	Decomposition Temperature:	No data available.
Specific Gravity:	2 g/ml	Oxidizing Properties:	No data available.
Relative Vapor Density (20°C):	No data available.	VOC:	0%
Viscosity (kinematic):	No data available.	Viscosity (dynamic):	No data available.
Relative Evaporation Rate (butyl acetate=1): No data available.			

10. Stability & Reactivity Information

REACTIVITY:

Upon combustion: CO and CO2 are formed.

CHEMICAL STABILITY:

No additional information available.

POSSIBILITY OF HAZARDOUS REACTIONS:

Refer to Section 10 on reactivity.

INCOMPATIBLE MATERIALS:

No additional information available.

CONDITIONS TO AVOID:

No additional information available.

HAZARDOUS DECOMPOSITION PRODUCTS:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological Information

ACUTE TOXICITY:

Not classified.

SKIN CORROSION/IRRITATION:

Not classified.

SERIOUS EYE DAMAGE/IRRITATION:

Not classified.

RESPIRATORY OR SKIN SENSITIZATION:

Not classified.

GERM CELL MUTAGENICITY:

Not classified.

CARCINOGENICITY:

Not classified.

REPRODUCTIVE TOXICITY:

Not classified.

SPECIFIC TARGET ORGAN TOXICITY (single exposure):

Not classified.

SPECIFIC TARGET ORGAN TOXICITY(repeated exposure):

Not classified.

ASPIRATION HAZARD:

Not classified.

SYMPTOMS/INJURIES AFTER INHALATION:

None under normal use.

SYMPTOMS/INJURIES AFTER SKIN CONTACT:

Contact during a long period may cause light irritation.

SYMPTOMS/INJURIES AFTER EYE CONTACT:

Causes serious eye irritation.

SYMPTOMS/INJURIES AFTER INGESTION:

Gastrointestinal complaints.

12. Ecological Information**TOXICITY:**

No additional information available.

PERSISTENCE AND DEGRADABILITY:

No additional information available.

BIOACCUMULATIVE POTENTIAL:

No additional information available.

13. Disposal Consideration

Dispose in a safe manner in accordance with local/national regulations.

14. Transportation Information**DEPARTMENT OF TRANSPORTATION (DOT)**

In accordance with DOT: Not regulated for transport

ADDITIONAL INFORMATION:

Other information: No supplementary information available.

ADR: No additional information available.

TRANSPORT BY SEA:

No additional information available.

AIR TRANSPORT:

No additional information available.

15. Regulatory Information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

16. Other Information**TRAINING ADVICE:**

Normal use of this product shall imply use in accordance with the instructions on the packaging.

DISCLAIMER:

To the best of our knowledge, information contained herein is accurate. However, there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard, which exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product, which may not be covered by this SDS. The user is responsible for full compliance.

Product Name: MOBIL SHC GEAR 320
Revision Date: 06 Oct 2021
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SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: MOBIL SHC GEAR 320
Product Description: Synthetic Base Stocks and Additives
Product Code: 2015604090B0, 615054-86
Intended Use: Gear oil

COMPANY IDENTIFICATION

Supplier: AMPOL AUSTRALIA PETROLEUM PTY LTD
ABN 17 000 032 128
29-33 Bourke Rd
Alexandria
New South Wales 2015 Australia

24 Hour Emergency Telephone	1800 033 111
Product Technical Information	1300364169
Supplier General Contact	+612 9250-5000
FAX	+612 9250-5742

SECTION 2 HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

Other hazard information:

Physical / Chemical Hazards:

No significant hazards.

Health Hazards:

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

Environmental Hazards:

No significant hazards.

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

Product Name: MOBIL SHC GEAR 320
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
BENZENE, C10-14- ALKYL DERIVS.	68442-69-3	0.1 - < 0.25%	H304, H315, H400(M factor 1)
DITRIDECYL ADIPATE	16958-92-2	10 - < 20%	None

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Other ingredients determined not to be hazardous up to 100%.

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

NOTE TO PHYSICIAN

None

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight streams of water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces

Product Name: MOBIL SHC GEAR 320
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and to protect personnel.

Hazardous Combustion Products: Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: >210°C (410°F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0

Autoignition Temperature: N/D

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

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Static Accumulator: This material is a static accumulator.

STORAGE

The type of container used to store the material may affect static accumulation and dissipation. Do not store in open or unlabelled containers.

Material is defined under the National Standard [NOHSC:1015] Storage and Handling of Workplace Dangerous Goods.

SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION
------------------	--

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit/Standard		Note	Source
DITRIDECYL ADIPATE		TWA	5 mg/m3		ExxonMobil

Exposure limits/standards for materials that can be formed when handling this product:

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

Biological limits

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Particulate

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use

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conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Nitrile, Viton

No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practise good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Colour: Colorless to Yellow
Odour: Characteristic
Odour Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.86 [ASTM D4052]
Flammability (Solid, Gas): N/A
Flash Point [Method]: >210°C (410°F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: N/D
Boiling Point / Range: > 316°C (600°F)
Decomposition Temperature: N/D
Vapour Density (Air = 1): > 2 at 101 kPa
Vapour Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
Solubility in Water: Negligible
Viscosity: 320 cSt (320 mm²/sec) at 40 °C [ASTM D 445]
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Product Name: MOBIL SHC GEAR 320
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Freezing Point: N/D
Melting Point: N/A
Pour Point: -33°C (-27°F) [ASTM D5950]

SECTION 10	STABILITY AND REACTIVITY
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STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

INCOMPATIBLE MATERIALS: Strong oxidisers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11	TOXICOLOGICAL INFORMATION
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INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
Eye	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
Sensitisation	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
Aspiration: Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for	Not expected to cause organ damage from a single exposure.

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SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14	TRANSPORT INFORMATION
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LAND (ADG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

SECTION 15	REGULATORY INFORMATION
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This material is not considered hazardous according to Australia Model Work Health and Safety Regulations.

Product is not regulated according to Australian Dangerous Goods Code.

No Poison Schedule number allocated by the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act.

AS1940 COMBUSTIBLE CLASS: C2

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories : AIIC, DSL, ENCS, IECSC, ISHL, KECI, TCSI, TSCA

Special Cases:

Inventory	Status
PICCS	Restrictions Apply

SECTION 16	OTHER INFORMATION
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KEY TO ABBREVIATIONS AND ACRONYMS:

N/D = Not determined, N/A = Not applicable, STEL = Short-Term Exposure Limit, TWA = Time-Weighted Average

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1

H315: Causes skin irritation; Skin Corr/Irritation, Cat 2

H400: Very toxic to aquatic life; Acute Env Tox, Cat 1

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Section 01: Company Mailing Address information was modified.



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DGN: 7113194DAU (1018078)

Prepared by: Exxon Mobil Corporation
EMBSI, Clinton NJ USA
Contact Point: See Section 1 for Local Contact number

End of (M)SDS



Northland MW Select 5W20

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 11/22/2013 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Northland MW Select 5W20
Product code : 10E1
Other means of identification : API SN Engine Oil

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : API SN Engine Oil

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Spills of this product present a serious slipping hazard. Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	(CAS No) 68649-42-3	<1	Skin Irrit. 2, H315 Eye Dam. 1, H318
Distillates, petroleum, solvent-dewaxed heavy paraffinic	(CAS No) 64742-65-0	0.1 - 5	Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined heavy paraffinic	(CAS No) 64741-88-4	0.1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined light paraffinic	(CAS No) 64741-89-5	0.1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304

Northland MW Select 5W20

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Injection under the skin can cause inflammation and swelling.
- Symptoms/injuries after eye contact : If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Immediate treatment at a surgical emergency center is recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases flammable vapours. Leaks/ruptures in high pressure system can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain. This material can burn but will not readily ignite. Under fire conditions closed containers may rupture or explode.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor . Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

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Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Recover large spills by pumping (use an explosion proof or hand pump). Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product. Never use pressure to empty containers. Over pressure may rupture containers, cause serious injury, cause or accelerate fire.

Precautions for safe handling : Keep out of reach of children. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Ground/bond container and receiving equipment. Never use pressure to empty container. Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ensure adequate ventilation of the storage area. A washing facility/water for eye and skin cleaning purposes should be present.

Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances.

Incompatible materials : Strong acid. Base. Oxidizing agents.

Storage temperature : Store at ambient temperature

Heat and ignition sources : Remove all sources of ignition.

Storage area : Well-ventilated area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls : Use adequate general or local ventilation to keep airborne concentrations below the exposure limits. Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles.



Hand protection : Wear protective gloves, rubber gloves.

Eye protection : Wear goggles if splashing or spraying is anticipated. Chemical goggles or safety glasses, with side-shields.

Skin and body protection : Wear protective clothing. Wear rubber boots.

Respiratory protection : Protection factors vary depending upon the type of respirator used. In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).

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Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Environmental exposure controls	: Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear Green.
Odour	: Petroleum. Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 320 °C (608 °F)
Flash point	: 200 °C (392 °F) Test method: COC
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Lower Flammability Limit (LFL) 0.9 Upper Flammability Limit (UFL) 7.0
Vapour pressure	: < 0.01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0,862 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: No data available
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 49 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal temperatures and pressures.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
LD50 dermal rabbit	> 2000 mg/kg

Northland MW Select 5W20

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2,18 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5 g/kg
LC50 inhalation rat (mg/l)	2,18 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classifiedBased on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classifiedBased on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classifiedBased on available data, the classification criteria are not met
Aspiration hazard	: Not classifiedMay be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Injection under the skin can cause inflammation and swelling.
Symptoms/injuries after eye contact	: If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May be toxic to aquatic life.

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
EC50 Daphnia 1	1 - 1,5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	10,0 - 35,0 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Northland MW Select 5W20	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland MW Select 5W20	
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

Northland MW Select 5W20

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. Do not pressurize, cut, weld, braze solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

Additional information : Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

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Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

U.S. - Texas - Effects Screening Levels - Long Term

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)
U.S. - Texas - Effects Screening Levels - Short Term
Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)
U.S. - Massachusetts - Right To Know List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Irrit. 2	skin corrosion/irritation Category 2
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks

SAFETY DATA SHEET

Airgas.
an Air Liquide company

Nitrogen

Section 1. Identification

GHS product identifier : Nitrogen
Chemical name : nitrogen
Other means of identification : nitrogen (dot); nitrogen gas; Nitrogen NF, Nitrogen FG
Product type : Gas.
Product use : Synthetic/Analytical chemistry.
Synonym : nitrogen (dot); nitrogen gas; Nitrogen NF, Nitrogen FG
SDS # : 001040
Supplier's details : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253
24-hour telephone : 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : GASES UNDER PRESSURE - Compressed gas
SIMPLE ASPHYXIANTS

GHS label elements

Hazard pictograms :



Signal word : Warning
Hazard statements : Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.
May displace oxygen and cause rapid suffocation.

Precautionary statements

General : Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction.
Prevention : Not applicable.
Response : Not applicable.
Storage : Protect from sunlight. Store in a well-ventilated place.
Disposal : Not applicable.
Supplemental label elements : Keep container tightly closed. Use only with adequate ventilation. Do not enter storage areas and confined spaces unless adequately ventilated.
Hazards not otherwise classified : In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation.

Nitrogen

Section 3. Composition/information on ingredients

Substance/mixture : Substance
Chemical name : nitrogen
Other means of identification : nitrogen (dot); nitrogen gas; Nitrogen NF, Nitrogen FG
Product code : 001040

CAS number/other identifiers

CAS number : 7727-37-9

Ingredient name	%	CAS number
Nitrogen	100	7727-37-9

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : As this product is a gas, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Contact with rapidly expanding gas may cause burns or frostbite.

Inhalation : At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen.

Skin contact : Contact with rapidly expanding gas may cause burns or frostbite.

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Ingestion : As this product is a gas, refer to the inhalation section.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Section 4. First aid measures

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Immediately contact emergency personnel. Stop leak if without risk.
- Large spill** : Immediately contact emergency personnel. Stop leak if without risk. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
Avoid contact with eyes, skin and clothing. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Nitrogen	ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant].

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : The gas can cause asphyxiation without warning by replacing the oxygen in the air. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. If operating conditions cause high gas concentrations to be produced or any recommended or statutory exposure limit is exceeded, use an air-fed respirator or self-contained breathing apparatus. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Gas. [Compressed gas.]
- Color** : Colorless.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -210.01°C (-346°F)
- Boiling point** : -196°C (-320.8°F)
- Critical temperature** : -146.95°C (-232.5°F)
- Flash point** : [Product does not sustain combustion.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : 0.967 (Air = 1) Liquid Density@BP: 50.46 lb/ft³ (808.3 kg/m³)
- Specific Volume (ft³/lb)** : 13.8889
- Gas Density (lb/ft³)** : 0.072
- Relative density** : Not applicable.
- Solubility** : Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : 0.67
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Flow time (ISO 2431)** : Not available.
- Molecular weight** : 28.02 g/mole

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Do not allow gas to accumulate in low or confined areas.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact

: Contact with rapidly expanding gas may cause burns or frostbite.

Inhalation

: At very high concentrations, can displace the normal air and cause suffocation from lack

Section 11. Toxicological information

- Skin contact** : Contact with rapidly expanding gas may cause burns or frostbite.
Ingestion : As this product is a gas, refer to the inhalation section.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Nitrogen	0.67	-	low

Mobility in soil

- Soil/water partition coefficient (K_{oc})** : Not available.






Section 12. Ecological information

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1066	UN1066	UN1066	UN1066	UN1066
UN proper shipping name	NITROGEN, COMPRESSED	NITROGEN, COMPRESSED	NITROGEN, COMPRESSED	NITROGEN, COMPRESSED	NITROGEN, COMPRESSED
Transport hazard class(es)	2.2 	2.2 	2.2 	2.2 	2.2 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Additional information

DOT Classification : **Limited quantity** Yes.

Quantity limitation Passenger aircraft/rail: 75 kg. Cargo aircraft: 150 kg.

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).

Explosive Limit and Limited Quantity Index 0.125

Passenger Carrying Road or Rail Index 75

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 75 kg. Cargo Aircraft Only: 150 kg.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: This material is listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

State regulations

Massachusetts : This material is listed.

New York : This material is not listed.

New Jersey : This material is listed.

Pennsylvania : This material is listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : This material is listed or exempted.

Canada : This material is listed or exempted.

China : This material is listed or exempted.

Europe : This material is listed or exempted.

Japan : **Japan inventory (ENCS):** Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : This material is listed or exempted.

Section 15. Regulatory information

Republic of Korea	: This material is listed or exempted.
Taiwan	: This material is listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: This material is active or exempted.
Viet Nam	: This material is listed or exempted.

Section 16. Other information

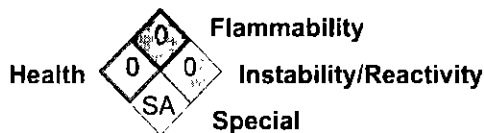
Hazardous Material Information System (U.S.A.)

Health	0
Flammability	0
Physical hazards	3

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
GASES UNDER PRESSURE - Compressed gas	Expert judgment
SIMPLE ASPHYXIANTS	Expert judgment

History

Date of printing	: 8/31/2021
Date of issue/Date of revision	: 8/31/2021
Date of previous issue	: 4/30/2019
Version	: 1.04

Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container
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Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Northland Norplex II Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 04/06/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Substance
Trade name : Norplex II Grease
Product code : 85C0
Other means of identification : Lubricating Grease

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Lubricating Grease

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Injection under skin can cause severe injury. Most damage occurs i the first few hours. Initial symptoms may be minimal.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Northland Norplex II Grease

Full text of H-phrases: see section 16

3.2. Mixture

This product does not contain any substance presented in above cut-off concentration limits that classified as hazardous in accordance with paragraph (d) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Injection of petroleum hydrocarbons requires immediate medical attention.

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Northland Norplex II Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: May produce an allergic reaction.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
- Symptoms/injuries after eye contact : Oil Mist. May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Special danger of slipping by leaking/spilling product.

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- Precautions for safe handling : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed.
- Incompatible materials : Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Protect against direct sunlight.
- Special rules on packaging : Correctly labelled.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbonic acid calcium salt (471-34-1)		
USA OSHA	OSHA PEL (TWA) (mg/m ³) : Respirable fraction	5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³) : Total dust	15 mg/m ³

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.



- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Chemical goggles or safety glasses, with side-shields.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection.
- Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid, Smooth
- Colour : Blue.
- odour : Petroleum. characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available

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Flash point	: >200 °C (392 °F)
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 1 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.873 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
NLGI Grade	: 2

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Carbonic acid calcium salt (471-34-1)

LD50 oral rat	6450 mg/kg
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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: May produce an allergic reaction.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Oil Mist. May cause eye irritation.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Carbonic acid calcium salt (471-34-1)

LC50 fishes 1

56000 mg/l (Exposure time: 96 h - Species: Gambusia affinis - Adult [Fresh water])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information

: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations. Product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Additional information

: Used oil/grease, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information

: No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Northland Norplex II Grease	
SARA Section 311/312 Hazard Classes	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802
Clean Water Act (CWA) 307	Zinc compounds
40 CFR part 707, subpart D (TSCA 12 B)	Isopropanol (IPA) CAS# 67-63-0, 9 Octadecene 1 amine CAS# 112-90-3

Northland Norplex II Grease

All Components listed on the United States TSCA (Toxic Substances Control Act) inventory

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15.2. International regulations

CANADA

Northland Norplex II Grease

All components listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Northland Norplex II Grease

All Components listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

Northland Norplex II Grease

All Components listed on the AICS (the Australian Inventory of Chemical Substances)

All Components listed on Inventory of Existing Chemical Substances (IECSC)

All Components listed on the Korean ECL (Existing Chemical List) inventory.

All Components listed on New Zealand - Inventory of Chemicals (NZIoC)

All Components listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks



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Date of issue: 11/03/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Northland Norsolv
Product code : 89A0

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Mineral Spirits

1.3. Details of the supplier of the safety data sheet

Northland Products
1000 Rainbow Drive
Waterloo, 50704 - USA

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Aspiration Hazard. 2 H304
Skin Corrosion/Irritation. 2 H315
Serious Eye Damage/Eye Irritation. 2B H320
Flammable Liquid. 3 H226
Acute Toxicity – Inhalation Vapour. 3 H331
Specific Target Organ System Toxicity (STOT)
– Single Exposure. 3 H335

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H226 – Flammable liquid and vapour
H304 – May be fatal if swallowed and enters airways
H315 – Causes skin and eye irritation
H320 – Causes eye irritation
H331 – Toxic if inhaled
H335 – May cause respiratory irritation

Precautionary statements (GHS-US) :

P210 – Keep away from heat, sparks, open flames and hot surfaces – No smoking.
P240 – Ground and bond container and receiving equipment.
P241 – Use explosion-proof electrical, ventilating, and lighting equipment.
P242 – Use only non-spraying tools.
P243 – Take precautionary measures against static discharge.
P261 – Avoid breathing dust, gas, mist, vapors or spray.
P264 – Wash thoroughly after handling.
P271 – Use only outdoors or in well-ventilated area.
P280 – Wear gloves, eye and face protection and protective clothing.
P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P3054+P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 – Call a POISON CENTER or doctor if you feel unwell.
P321 – Specific treatment (see on this label).

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P331 – Do NOT induce vomiting.
P332+P313 – If skin irritation occurs: Get medical advice or attention.
P337+P313 – If eye irritation persists: Get medical advice or attention.
P362 – Take off contaminated clothing and wash it before reuse.
P370 – In case of fire: Use appropriate extinguishing media – See Section 5 on SDS.
P403+P233 – Store in well-ventilated place. Keep container tightly closed.
P403+P235 – Store in well-ventilated place. Keep cool.
P405 – Store in secure manner.
P501 – Dispose of in accordance with local, regional and international regulations.

2.3. Other hazards

Other hazards which do not result in classification

: Breathing high concentrations can cause irregular heartbeats which may be fatal. May cause damage to the following organs: kidneys, lungs, the nervous system, liver, mucous membranes, upper respiratory tract, skin, CNS, eye, lens or cornea.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Distillates, Petroleum, Hydrotreated Light	(CAS No) 64742-47-8	<100	Aspiration Hazard. 2 Skin Corrosion/Irritation. 2 Serious Eye Damage/Eye Irritation. 2B Flammable Liquid. 3 Acute Toxicity – Inhalation Vapour. 3 Specific Target Organ System Toxicity (STOT) – Single Exposure. 3

The chemical identity of some of the above components is considered confidential business information and is being withheld as permitted by 29 CFR 1910.1200 and various State Right-To-Know Laws.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

First-aid measures after skin contact : Immediately flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Wash with soap and water. Discard items which cannot be decontaminated.

First-aid measures after eye contact : Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lens if easy to do. Do not use eye ointment.

First-aid measures after ingestion : If swallowed, call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Note to physicians : If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : High vapor or mist concentrations may cause: eye irritation, respiratory irritation, headache, dizziness, anesthesia, drowsiness, unconsciousness, other central nervous system effects, including death. Prolonged exposure may cause serious damage to health. Negligible hazard at ambient temperature. May irritate: nose, throat, lungs.

Symptoms/injuries after skin contact : May cause mild irritation. Prolonged or repeated exposure may cause: irritation, Dermatitis (inflammation of the skin), drying, cracking. Minimally toxic by absorption.

Symptoms/injuries after eye contact : May cause mild irritation. May cause: temporary discomfort.

Symptoms/injuries after ingestion : Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death. May cause: gastrointestinal irritation, nausea, vomiting, diarrhea. Prolonged exposure may cause serious damage to health.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Alcohol resistant foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : May ignite when preheated. When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

- Precautionary measures fire : Approach from upwind. Vapours may travel long distances along ground before igniting/flashing back to vapour source. This material may burn but will not ignite readily.
Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
Other information : COMBUSTIBLE LIQUID. May ignite when preheated. Special danger of slipping by leaking/spilling product. Material will float and can be re-ignited on surface of water. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Toxic and irritating gases are released following thermal decomposition or combustion. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain. Uncontrolled release should be responded to by trained personnel using pre-planned procedures. . Will float and can be reignited on water surface.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection. Wear suitable respiratory protective equipment. For further information refer to section 8 : Exposure-controls/personal protection.
Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : COMBUSTIBLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.
Shut off source of leak if safe to do so. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor, but may not prevent ignition in closed spaces. Use non-sparking tools and equipment.
Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. DO NOT use sawdust or other cellulose-type material.
Place in non-leaking containers for immediate disposal. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. Prevent entry into basements, low areas, or confined areas.

6.4. Reference to other sections

- See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Special danger of slipping by leaking/spilling product. Electrostatic charges may be generated during pumping . As a result of flow, agitation, etc., electrostatic charges can be generated.

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- Precautions for safe handling** : Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. Use appropriate grounding and bonding practices. Always open containers slowly to allow any excess pressure to vent.
- Hygiene measures** : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures** : COMBUSTIBLE LIQUID. Store in a cool, well ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. Keep away from heat, sparks, and flames. Store at an ambient temperature. See Section 10 for incompatible materials.
- Storage conditions** : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed. Store containers in an upright manner to prevent leakage. Keep locked up and out of reach of children.
- Incompatible materials** : Strong reducing agents. Oxidizing agents. Strong acids.
- Heat and ignition sources** : Remove all sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Northland Norsolv		
USA ACGIH	ACGIH TWA (mg/m ³)	200 mg/m ³ (Skin); Distillates, Petroleum, Hydrotreated, Light

8.2. Exposure controls

- Appropriate engineering controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly. A washing facility/water for eye and skin cleaning purposes should be present. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Personal protective equipment** : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles. For certain operations, additional Personal Protection Equipment (PPE) may be required.



- Hand protection** : Wear protective gloves. Nitrile-rubber protective gloves. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- Eye protection** : Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.
- Skin and body protection** : Personal protective clothing should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling. Wear suitable protective clothing. Boots. Protective apron.
- Respiratory protection** : Respiratory protection may be required to avoid overexposure when handling this product. If exposure limits are exceeded, wear: NIOSH-Approved respirator. NIOSH-Approved air-purifying respirator with: Organic vapor cartridge. NIOSH-Approved Supplied Air Respirator (SAR). NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use. Work in well-ventilated zones or use proper respiratory protection. In fine dispersion/spraying/misting: In applications where aerosols or vapors are emitted, a full face organic vapor cartridge respirator with a particulate pre-filter should be worn. In confined areas and in emergency situations, use a self-contained breathing apparatus or other air supplied full face respirator.

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Thermal hazard protection	: Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
Environmental exposure controls	: Avoid discharge to the environment. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
Other information	: Do not eat, drink or smoke during use. Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear to light blue.
Odour	: Petroleum characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 159°C (318°F)
Flash point	: 42°C (108°F) Test method: TCC
Auto-ignition temperature	: 230°C (446°F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.01 mm Hg @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: 5
Relative density	: 0.780 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: No data available
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: UEL ~6.0% LEL ~0.6%
% Volatile	: 100 Wt%
VOC	: 100 Wt%

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong reducing agents. Oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

Toxic and irritating gases are released following thermal decomposition or combustion. Fume. Carbon monoxide. Carbon dioxide. Hydrogen sulfide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Northland Norsolv

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

Distillates, Petroleum, Hydrotreated, Light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	5.2 mg/l/4h
ATE CLP (dust,mist)	5.2000 mg/l/4h

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : May damage fertility or the unborn child.

Specific target organ toxicity (single exposure) : Not classified (Based on available data, the classification criteria are not met)

Specific target organ toxicity (repeated exposure) : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : High vapor or mist concentrations may cause: eye irritation, respiratory irritation, headache, dizziness, anesthesia, drowsiness, unconsciousness, other central nervous system effects, including death. Prolonged exposure may cause serious damage to health. Negligible hazard at ambient temperature. May irritate: nose, throat, lungs.

Symptoms/injuries after skin contact : May cause mild irritation. Prolonged or repeated exposure may cause: irritation, Dermatitis (inflammation of the skin), drying, cracking. Skin Absorption: Minimally toxic.

Symptoms/injuries after eye contact : May cause mild irritation. May cause: temporary discomfort.

Symptoms/injuries after ingestion : Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death. May cause: gastrointestinal irritation, nausea, vomiting, diarrhea. Prolonged exposure may cause serious damage to health.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) solvents normally will float on water. In stagnant or slow-flowing waterways, an petroleum layer can cover a large surface area. As a result, this petroleum layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Distillates, Petroleum, Hydrotreated Light (64742-47-8)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Northland Norsolv	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Norsolv	
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazardous Waste : D001,D018 (Possible additional number)

Northland Norsolv

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.
- Additional information : Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition.
- Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN1268

14.2. UN proper shipping name

Petroleum Distillates, N.O.S. (Naphtha Solvent)

14.3. Additional information

- Hazard Class : 3
- Packing Group : III
- Label Required : Flammable

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Northland Norsolv	
SARA Section 311/312 Hazard Classes	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802

Distillates, Petroleum, Hydrotreated Light (64742-47-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Distillates, Petroleum, Hydrotreated Light (64742-47-8)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

15.2.2. National regulations

No additional information available

15.3. US State regulations

*Prop 65 - May Contain the Following Trace Components: Benzene, Naphthalene, Ethylbenzene, Toluene

Northland Norsolv

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Distillates, Petroleum, Hydrotreated Light (64742-47-8)
U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H320	Causes eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks.

SAFETY DATA SHEET

Oxygen

Airgas
an Air Liquide company

Section 1. Identification

GHS product identifier : Oxygen

Chemical name : oxygen

Other means of identification : Molecular oxygen; Oxygen molecule; Pure oxygen; O₂; UN 1072; Dioxygen; Oxygen USP, Aviator's Breathing Oxygen (ABO)

Product type : Gas.

Product use : Synthetic/Analytical chemistry.

Synonym : Molecular oxygen; Oxygen molecule; Pure oxygen; O₂; UN 1072; Dioxygen; Oxygen USP, Aviator's Breathing Oxygen (ABO)

SDS # : 001043

Supplier's details : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

24-hour telephone : 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : OXIDIZING GASES - Category 1
GASES UNDER PRESSURE - Compressed gas

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : May cause or intensify fire; oxidizer.
Contains gas under pressure; may explode if heated.

Precautionary statements

General : Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Open valve slowly. Use only with equipment cleaned for Oxygen service.

Prevention : Keep away from clothing and other combustible materials. Keep reduction valves, valves and fittings free from oil and grease.

Response : In case of fire: Stop leak if safe to do so.

Storage : Protect from sunlight. Store in a well-ventilated place.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Substance
Chemical name	: oxygen
Other means of identification	: Molecular oxygen; Oxygen molecule; Pure oxygen; O ₂ ; UN 1072; Dioxygen; Oxygen USP, Aviator's Breathing Oxygen (ABO)
Product code	: 001043

CAS number/other identifiers

CAS number : 7782-44-7

Ingredient name	%	CAS number
oxygen	100	7782-44-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: As this product is a gas, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Contact with rapidly expanding gas may cause burns or frostbite.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Contact with rapidly expanding gas may cause burns or frostbite.
Frostbite	: Try to warm up the frozen tissues and seek medical attention.
Ingestion	: As this product is a gas, refer to the inhalation section.

Over-exposure signs/symptoms

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.

Section 4. First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Oxidizing material. This material increases the risk of fire and may aid combustion. Contact with combustible material may cause fire. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

Hazardous thermal decomposition products : No specific data.

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Section 7. Handling and storage

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid breathing gas. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
Avoid contact with eyes, skin and clothing. Empty containers retain product residue and can be hazardous. Keep away from clothing, incompatible materials and combustible materials. Keep reduction valves free from grease and oil.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Separate from reducing agents and combustible materials. Store away from grease and oil. Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
oxygen	None.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Gas. [Compressed gas.]
- Color** : Colorless. Blue.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -218.4°C (-361.1°F)
- Boiling point** : -183°C (-297.4°F)
- Critical temperature** : -118.15°C (-180.7°F)
- Flash point** : [Product does not sustain combustion.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Extremely flammable in the presence of the following materials or conditions: reducing materials, combustible materials and organic materials.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : 1.1 (Air = 1)
- Specific Volume (ft³/lb)** : 12.0482
- Gas Density (lb/ft³)** : 0.083
- Relative density** : Not applicable.
- Solubility** : Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : 0.65
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Flow time (ISO 2431)** : Not available.
- Molecular weight** : 32 g/mole

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following:
contact with combustible materials

Section 10. Stability and reactivity

Conditions to avoid : No specific data.

Incompatible materials : Highly reactive or incompatible with the following materials:
combustible materials
reducing materials
grease
oil

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Contact with rapidly expanding gas may cause burns or frostbite.

Inhalation : No known significant effects or critical hazards.

Skin contact : Contact with rapidly expanding gas may cause burns or frostbite.

Ingestion : As this product is a gas, refer to the inhalation section.

Section 11. Toxicological information

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

Not available.

General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
oxygen	0.65	-	low

Mobility in soil






Soil/water partition coefficient (K _{oc})	: Not available.
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Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1072	UN1072	UN1072	UN1072	UN1072
UN proper shipping name	OXYGEN, COMPRESSED	OXYGEN, COMPRESSED	OXYGEN, COMPRESSED	OXYGEN, COMPRESSED	OXYGEN, COMPRESSED
Transport hazard class(es)	2.2 (5.1) 	2.2 	2.2 (5.1) 	2.2 (5.1) 	2.2 (5.1) 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Additional information

DOT Classification : **Limited quantity** Yes.
Quantity limitation Passenger aircraft/rail: 75 kg. Cargo aircraft: 150 kg.
Special provisions A52

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2), 2.23-2.25 (Class 5).
Explosive Limit and Limited Quantity Index 0.125
ERAP Index 3000
Passenger Carrying Vessel Index 50
Passenger Carrying Road or Rail Index 75
Special provisions 42

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 75 kg. Cargo Aircraft Only: 150 kg.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: This material is listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

State regulations

Massachusetts : This material is listed.

New York : This material is not listed.

New Jersey : This material is listed.

Pennsylvania : This material is listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : This material is listed or exempted.

Canada : This material is listed or exempted.

China : This material is listed or exempted.

Europe : This material is listed or exempted.

Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : This material is listed or exempted.

Section 15. Regulatory information

Republic of Korea	: This material is listed or exempted.
Taiwan	: This material is listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: This material is active or exempted.
Viet Nam	: This material is listed or exempted.

Section 16. Other information

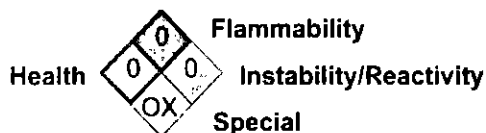
Hazardous Material Information System (U.S.A.)

Health	0
Flammability	0
Physical hazards	3

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
OXIDIZING GASES - Category 1 GASES UNDER PRESSURE - Compressed gas	Expert judgment According to package

History

Date of printing	: 9/22/2020
Date of issue/Date of revision	: 9/22/2020
Date of previous issue	: 2/3/2018
Version	: 1

Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container
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Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

1 Identification of the substance and manufacturer

Trade name: EQUIPMENT YELLOW (NEW)
Product code: 0000160213
Recommended use: Paint and coatings application.
Uses advised against: Any that differs from the recommended use.
Manufacturer/Supplier: Seymour of Sycamore
 917 Crosby Avenue
 Sycamore, IL 60178 USA
 phone: 815-895-9101
 www.seymourpaint.com
Emergency telephone number: 1-800-255-3924

Seymour of Sycamore
 3041 Dougall Avenue, Suite 503
 Windsor, ONT N9E 1S3 CANADA
 phone: 800-435-4482
 www.seymourpaint.com

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Aerosol 1 H222 Extremely flammable aerosol.
 Press. Gas H280 Contains gas under pressure; may explode if heated.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 STOT SE 3 H336 May cause drowsiness or dizziness.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Additional information:
GHS Hazard pictograms



Signal word
Hazard statements

Danger
 Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 Causes serious eye irritation.

Precautionary statements

May cause drowsiness or dizziness.
 May cause damage to organs through prolonged or repeated exposure.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Do not spray on an open flame or other ignition source.
 Pressurized container: Do not pierce or burn, even after use.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Call a poison center/doctor if you feel unwell.
 If eye irritation persists: Get medical advice/attention.
 Store in a well-ventilated place.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
67-64-1	Acetone	15-25%
74-98-6	propane	15-25%
106-97-8	n-butane	5-10%
7727-43-7	barium sulfate	5-10%
110-19-0	Isobutyl Acetate	5-10%
2807-30-9	Glycol Ether EP	≥5-<10%
123-86-4	butyl acetate	1-5%
108-65-6	PM acetate	1-5%
13463-67-7	titanium dioxide	1-5%
107-87-9	Methyl Propyl Ketone	1-5%

4 First-aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water.
 Rinse mouth with water. Do not induce vomiting.

Trade name: EQUIPMENT YELLOW (NEW)

(Contd. of page 1)

Most important symptoms and effects: Dizziness
Indication of any immediate medical attention needed: No further relevant information available.

5 Fire-fighting measures

Extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray.
Special hazards: Can form explosive gas-air mixtures.
Protective equipment for firefighters: A respiratory protective device may be necessary.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away. Use respiratory protective device against the effects of fumes/dust/aerosol.
Methods and material for containment and cleaning up: Ensure adequate ventilation.

7 Handling and storage

Precautions for safe handling: Use only in well ventilated areas.
Storage requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up.

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

67-64-1 Acetone

PEL (USA)	Long-term value: 2400 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 590 mg/m ³ , 250 ppm
TLV (USA)	Short-term value: 1187 mg/m ³ , 500 ppm Long-term value: 594 mg/m ³ , 250 ppm BEI

74-98-6 propane

PEL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV (USA)	refer to Appendix F in TLVs&BEIs book; D, EX

106-97-8 n-butane

REL (USA)	Long-term value: 1900 mg/m ³ , 800 ppm
TLV (USA)	Short-term value: 2370 mg/m ³ , 1000 ppm (EX)

7727-43-7 barium sulfate

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 5* mg/m ³ *inhalable fraction; E

110-19-0 isobutyl Acetate

PEL (USA)	Long-term value: 700 mg/m ³ , 150 ppm
REL (USA)	Long-term value: 700 mg/m ³ , 150 ppm
TLV (USA)	Short-term value: 712 mg/m ³ , 150 ppm Long-term value: 238 mg/m ³ , 50 ppm

123-86-4 butyl acetate

PEL (USA)	Long-term value: 710 mg/m ³ , 150 ppm
REL (USA)	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 710 mg/m ³ , 150 ppm
TLV (USA)	Short-term value: 712 mg/m ³ , 150 ppm Long-term value: 238 mg/m ³ , 50 ppm

108-65-6 PM acetate

WEEL (USA)	Long-term value: 50 ppm
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107-87-9 Methyl Propyl Ketone

PEL (USA)	Long-term value: 700 mg/m ³ , 200 ppm
REL (USA)	Long-term value: 530 mg/m ³ , 150 ppm

(Contd. on page 3)

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Revised On 01/11/2021

Trade name: EQUIPMENT YELLOW (NEW)

(Contd. of page 2)

TLV (USA)	Short-term value: 529 mg/m ³ , 150 ppm
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Ingredients with biological limit values:

67-64-1 Acetone

BEI (USA)	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
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Hygienic protection:	Keep away from foodstuffs and animal feed. Wash hands after use. Immediately remove all soiled and contaminated clothing. Wash hands after use. Avoid contact with the eyes and skin. Do not eat or drink while working.
Breathing equipment:	A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure exists, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.
Hand protection:	Nitrile gloves. The glove material must be impermeable and resistant to the substance.
Eye protection:	Tightly sealed goggles

9 Physical and chemical properties

Appearance:	Aerosol.
Odor:	Aromatic
Odor threshold:	Not determined.
pH-value:	Not determined.
Melting point/Melting range	Undetermined.
Boiling point:	-44 °C (-47.2 °F)
Flash point:	-19 °C (-2.2 °F)
Flammability (solid, gas):	Extremely flammable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	In use, may form flammable/explosive vapour-air mixture.
Lower Explosion Limit:	1.7 Vol %
Upper Explosion Limit:	10.9 Vol %
Vapor pressure:	Not determined.
Relative Density:	Between 0.77 and 0.85 (Water equals 1.00)
Vapor density	Not determined.
Evaporation rate	Not applicable.
Partition coefficient: n-octonal/water:	Not determined.
Solubility:	Not determined.
Viscosity:	Not determined.
Water:	0.0 %

10 Stability and reactivity

Reactivity:	Stable at normal temperatures.
Conditions to avoid:	Do not allow can to exceed 120 degrees Fahrenheit. Do not warehouse in subfreezing temperatures.
Chemical stability:	Not fully evaluated.
Possibility of hazardous reactions:	No dangerous reactions known.
Incompatible materials:	No further relevant information available.
Hazardous decomposition:	No dangerous decomposition products known.

11 Toxicological information

LD/LC50 values that are relevant for classification:		
110-19-0 Isobutyl Acetate		
Oral	LD50	4,763 mg/kg (rbt)
123-86-4 butyl acetate		
Oral	LD50	14,000 mg/kg (rat)
Inhalative	LC50/4 h	>21 mg/l (rat)
108-65-6 PM acetate		
Oral	LD50	8,500 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/l (rat)
13463-67-7 titanium dioxide		
Oral	LD50	>20,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rbt)
Inhalative	LC50/4 h	>6.82 mg/l (rat)

(Contd. on page 4)

Trade name: EQUIPMENT YELLOW (NEW)

(Contd. of page 3)

Information on toxicological effects: No data available.
Skin effects: No irritant effect.
Eye effects: Irritating effect.
Sensitization: No sensitizing effects known.

12 Ecological information

Aquatic toxicity: Hazardous for water, do not empty into drains.
Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.
Other information: This product does not contain any chlorofluorocarbons (CFC's), hydrochlorofluorocarbons (HCFC's), perfluorocarbons (PFC's), heavy metals (chromium, lead, cadmium), or chlorinated solvents.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Other adverse effects: No further relevant information available.

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Completely empty cans should be recycled.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

UN-Number: UN1950
DOT: UN1950
DOT: Aerosols, flammable
ADR: 1950 Aerosols
Transport hazard class(es):
Class: 2.1
Marine pollutant: No
Special precautions for user: Warning: Gases
EMS Number: F-D,S-U
Packaging Group: --
UN "Model Regulation": UN1950, Aerosols, 2.1

15 Regulatory information

SARA Section 355 (extremely hazardous substances):
 None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):
 7727-43-7 | barium sulfate

Toxic Substances Control Act (TSCA): All hazardous ingredients are found on the inventory list of substances.
Canadian Domestic Substances List (DSL): All ingredients are listed or exempted.
Consumer Product Safety Commission (CPSC): This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:
 13463-67-7 | titanium dioxide
 108-10-1 | methyl isobutyl ketone
 100-41-4 | ethyl benzene

Prop 65 chemicals known to cause birth defects or reproductive harm:
 108-10-1 | methyl isobutyl ketone

EPA:		
67-64-1	Acetone	I
7727-43-7	barium sulfate	D, CBD(inh), NL(oral)
110-19-0	Isobutyl Acetate	D

16 Other information

Contact: Regulatory Affairs

1 Identification of the substance and manufacturer

Trade name: UNIVERSAL BLACK
Product code: EN00420000
Recommended use: Paint and coatings application.
Uses advised against: Any that differs from the recommended use.
Manufacturer/Supplier: Seymour of Sycamore
 917 Crosby Avenue
 Sycamore, IL 60178 USA
 phone: 815-895-9101
 www.seymourpaint.com
Emergency telephone number: 1-800-255-3924

Seymour of Sycamore
 3041 Dougall Avenue, Suite 503
 Windsor, ONT N9E 1S3 CANADA
 phone: 800-435-4482
 www.seymourpaint.com

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Aerosol 1 H222 Extremely flammable aerosol.
 Press. Gas H280 Contains gas under pressure; may explode if heated.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 STOT SE 3 H336 May cause drowsiness or dizziness.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Additional information:
GHS Hazard pictograms



GHS02 GHS04 GHS07 GHS08

Signal word
Hazard statements

Danger
 Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 Causes serious eye irritation.
 May cause drowsiness or dizziness.

Precautionary statements

May cause damage to organs through prolonged or repeated exposure.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Do not spray on an open flame or other ignition source.
 Pressurized container: Do not pierce or burn, even after use.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Call a poison center/doctor if you feel unwell.
 If eye irritation persists: Get medical advice/attention.
 Store in a well-ventilated place.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
67-64-1	Acetone	25-50%
74-98-6	propane	15-25%
110-19-0	Isobutyl Acetate	10-15%
106-97-8	n-butane	5-10%
2807-30-9	Glycol Ether EP	≥5-<10%
108-10-1	methyl isobutyl ketone	1-5%
108-65-6	PM acetate	1-5%
107-87-9	Methyl Propyl Ketone	1-5%

4 First-aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water.
 Rinse mouth with water. Do not induce vomiting.
Most important symptoms and effects: Dizziness

Trade name: UNIVERSAL BLACK

(Contd. of page 1)

Indication of any immediate medical attention needed: No further relevant information available.

5 Fire-fighting measures

Extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray.
 Special hazards: Can form explosive gas-air mixtures.
 Protective equipment for firefighters: A respiratory protective device may be necessary.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away. Use respiratory protective device against the effects of fumes/dust/aerosol.
 Methods and material for containment and cleaning up: Ensure adequate ventilation.

7 Handling and storage

Precautions for safe handling: Use only in well ventilated areas.
 Storage requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up.

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

67-64-1 Acetone

PEL (USA) Long-term value: 2400 mg/m³, 1000 ppm
 REL (USA) Long-term value: 590 mg/m³, 250 ppm
 TLV (USA) Short-term value: 1187 mg/m³, 500 ppm
 Long-term value: 594 mg/m³, 250 ppm
 BEI

74-98-6 propane

PEL (USA) Long-term value: 1800 mg/m³, 1000 ppm
 REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
 TLV (USA) refer to Appendix F in TLVs&BEIs book; D, EX

110-19-0 Isobutyl Acetate

PEL (USA) Long-term value: 700 mg/m³, 150 ppm
 REL (USA) Long-term value: 700 mg/m³, 150 ppm
 TLV (USA) Short-term value: 712 mg/m³, 150 ppm
 Long-term value: 238 mg/m³, 50 ppm

106-97-8 n-butane

REL (USA) Long-term value: 1900 mg/m³, 800 ppm
 TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm
 (EX)

108-10-1 methyl isobutyl ketone

PEL (USA) Long-term value: 410 mg/m³, 100 ppm
 REL (USA) Short-term value: 300 mg/m³, 75 ppm
 Long-term value: 205 mg/m³, 50 ppm
 TLV (USA) Short-term value: 307 mg/m³, 75 ppm
 Long-term value: 82 mg/m³, 20 ppm
 BEI

108-65-6 PM acetate

WEEL (USA) Long-term value: 50 ppm

107-87-9 Methyl Propyl Ketone

PEL (USA) Long-term value: 700 mg/m³, 200 ppm
 REL (USA) Long-term value: 530 mg/m³, 150 ppm
 TLV (USA) Short-term value: 529 mg/m³, 150 ppm

Ingredients with biological limit values:

67-64-1 Acetone

BEI (USA) 50 mg/L
 Medium: urine
 Time: end of shift
 Parameter: Acetone (nonspecific)

(Contd. on page 3)

Trade name: UNIVERSAL BLACK

(Contd. of page 2)

108-10-1 methyl isobutyl ketone

BEI (USA)	1 mg/L Medium: urine Time: end of shift Parameter: MIBK
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Hygienic protection: Keep away from foodstuffs and animal feed. Wash hands after use. Immediately remove all soiled and contaminated clothing. Wash hands after use. Avoid contact with the eyes and skin. Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure exists, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Nitrile gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles

9 Physical and chemical properties

Appearance: Aerosol.
Odor: Aromatic
Odor threshold: Not determined.
pH-value: Not determined.
Melting point/Melting range: Undetermined.
Boiling point: -110 °C (-166 °F)
Flash point: -19 °C (-2.2 °F)
Flammability (solid, gas): Extremely flammable.
Decomposition temperature: Not determined.
Auto igniting: Product is not self-igniting.
Danger of explosion: In use, may form flammable/explosive vapour-air mixture.
Lower Explosion Limit: 1.7 Vol %
Upper Explosion Limit: 10.9 Vol %
Vapor pressure: Not determined.
Relative Density: Between 0.77 and 0.85 (Water equals 1.00)
Vapor density: Not determined.
Evaporation rate: Not applicable.
Partition coefficient: n-octanol/water: Not determined.
Solubility: Not determined.
Viscosity: Not determined.
Water: 0.0 %

10 Stability and reactivity

Reactivity: Stable at normal temperatures.
Conditions to avoid: Do not allow can to exceed 120 degrees Fahrenheit. Do not warehouse in subfreezing temperatures.
Chemical stability: Not fully evaluated.
Possibility of hazardous reactions: No dangerous reactions known.
Incompatible materials: No further relevant information available.
Hazardous decomposition: No dangerous decomposition products known.

11 Toxicological information**LD/LC50 values that are relevant for classification:****110-19-0 Isobutyl Acetate**

Oral	LD50	4,763 mg/kg (rbt)
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108-10-1 methyl isobutyl ketone

Oral	LD50	2,100 mg/kg (rat)
Dermal	LD50	16,000 mg/kg (rab)
Inhalative	LC50/4 h	8.3-16.6 mg/l (rat)

108-65-6 PM acetate

Oral	LD50	8,500 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/l (rat)

Information on toxicological effects: No data available.**Skin effects:** No irritant effect.**Eye effects:** Irritating effect.

(Contd. on page 4)

Safety Data Sheet

Printing date 01/05/2021

Revised On 01/05/2021

Trade name: UNIVERSAL BLACK

Sensitization: No sensitizing effects known.

(Contd. of page 3)

12 Ecological information

Aquatic toxicity: Hazardous for water, do not empty into drains.
Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.
Other information: This product does not contain any chlorofluorocarbons (CFC's), hydrochlorofluorocarbons (HCFC's), perfluorocarbons (PFC's), heavy metals (chromium, lead, cadmium), or chlorinated solvents.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Other adverse effects: No further relevant information available.

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Completely empty cans should be recycled.

14 Transport information

UN-Number: UN1950
DOT: UN1950
DOT: Aerosols, flammable
ADR: 1950 Aerosols
Transport hazard class(es):
Class: 2.1
Marine pollutant: No
Special precautions for user: Warning: Gases
EMS Number: F-D,S-U
Packaging Group: --
UN "Model Regulation": UN1950, Aerosols, 2.1

15 Regulatory information

SARA Section 355 (extremely hazardous substances):		
None of the ingredients in this product are listed.		
SARA Section 313 (Specific toxic chemical listings):		
108-10-1	methyl isobutyl ketone	
Toxic Substances Control Act (TSCA):		
Canadian Domestic Substances List (DSL):		All hazardous ingredients are found on the inventory list of substances.
Consumer Product Safety Commission (CPSC):		All ingredients are listed or exempted.
This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.		
California Proposition 65 chemicals known to cause cancer:		
108-10-1	methyl isobutyl ketone	
1333-86-4	Carbon black	
100-41-4	ethyl benzene	
Prop 65 chemicals known to cause birth defects or reproductive harm:		
108-10-1	methyl isobutyl ketone	
EPA:		
67-64-1	Acetone	I
110-19-0	Isobutyl Acetate	D
108-10-1	methyl isobutyl ketone	I

16 Other information

Contact: Regulatory Affairs

1 Identification of the substance and manufacturer

Trade name: SAFETY RED (MRO) GALLONS
Product code: 0000011423
Recommended use: Paint and coating applications.
Uses advised against: Any that differs from the recommended use.
Manufacturer/Supplier: Seymour of Sycamore
 917 Crosby Avenue
 Sycamore, IL 60178 USA
 phone: 815-895-9101
 www.seymourpaint.com

Seymour of Sycamore
 3041 Dougail Avenue, Suite 503
 Windsor, ONT N9E 1S3 CANADA
 phone: 800-435-4482
 www.seymourpaint.com

Emergency telephone number: 1-800-255-3924

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Liq. 2 H225 Highly flammable liquid and vapor.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS Hazard pictograms



GHS02 GHS07 GHS08

Signal word

Danger

Hazard statements

Highly flammable liquid and vapor.
 Causes serious eye irritation.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash hands thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 In case of fire: Use for extinction: CO2, powder or water spray.
 Store in a well-ventilated place.
 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
64742-47-8	Mineral Spirits	20.09%
7727-43-7	barium sulfate	16.14%
108-65-6	PM acetate	4.983%
64742-48-9	Naphtha, hydrotreated heavy	1.12%
1330-20-7	xylene (mix)	1.11%

4 First-aid measures

After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: Rinse out mouth and then drink plenty of water.
 Rinse mouth with water. Do not induce vomiting.

Most important symptoms and effects:

No further relevant information available.

Indication of any immediate medical attention needed:

No further relevant information available.

5 Fire-fighting measures

Special hazards: No further relevant information available.

Protective equipment for firefighters: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.

Methods and material for containment and cleaning up: Ensure adequate ventilation.
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

Trade name: SAFETY RED (MRO) GALLONS

Storage requirements:

Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up. (Contd. of page 1)

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

7727-43-7 barium sulfate

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 5* mg/m ³ *inhalable fraction; E

108-65-6 PM acetate

WEEL (USA)	Long-term value: 50 ppm
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1330-20-7 xylene (mix)

PEL (USA)	Long-term value: 435 mg/m ³ , 100 ppm
REL (USA)	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV (USA)	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI

Ingredients with biological limit values:

1330-20-7 xylene (mix)

BEI (USA)	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
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- Hygienic protection:** Keep away from foodstuffs and animal feed. Wash hands after use.
Wash hands after use.
Do not eat or drink while working.
- Breathing equipment:** Not required.
- Hand protection:** Nitrile gloves.
The glove material must be impermeable and resistant to the substance.
- Eye protection:** Tightly sealed goggles

9 Physical and chemical properties

- Appearance:** Liquid.
- Odor threshold:** Not determined.
- pH-value:** Not determined.
- Melting point/Melting range:** Undetermined.
- Boiling point:** 146 °C (294.8 °F)
- Flash point:** -19 °C (-2.2 °F)
- Flammability (solid, gas):** Highly flammable.
- Decomposition temperature:** Not determined.
- Auto igniting:** Product is not self-igniting.
- Danger of explosion:** In use, may form flammable/explosive vapour-air mixture.
- Lower Explosion Limit:** 0.5 Vol %
- Upper Explosion Limit:** 6.5 Vol %
- Vapor pressure:** Not determined.
- Vapor density:** Not determined.
- Evaporation rate:** Not determined.
- Partition coefficient: n-octanol/water:** Not determined.
- Solubility:** Not determined.
- Viscosity:** Not determined.
- VOC content (less exempt solvents):** 28.5 %
- Water:** 0.0 %

10 Stability and reactivity

- Conditions to avoid:** No decomposition if used according to specifications.
- Possibility of hazardous reactions:** No dangerous reactions known.
- Incompatible materials:** No further relevant information available.
- Hazardous decomposition:** No dangerous decomposition products known.

11 Toxicological information

LD/LC50 values that are relevant for classification:

108-65-6 PM acetate

Oral	LD50	8,500 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/l (rat)

Trade name: SAFETY RED (MRO) GALLONS

(Contd. of page 2)

64742-48-9 Naphtha, hydrotreated heavy		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>3,000 mg/kg (rab)
1330-20-7 xylene (mix)		
Oral	LD50	8,700 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rbt)
Inhalative	LC50/4 h	6,350 mg/l (rat)
Information on toxicological effects: No data available.		
Skin effects: No irritant effect.		
Eye effects: No irritating effect.		
Sensitization: No sensitizing effects known.		

12 Ecological information

Aquatic toxicity: Hazardous for water, do not empty into drains.

Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.

Other Information: This product does not contain any chlorofluorocarbons (CFC's), hydrochlorofluorocarbons (HCFC's), perfluorocarbons (PFC's), heavy metals (chromium, lead, cadmium), or chlorinated solvents.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Other adverse effects: No further relevant information available.

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.

Recommendation: Completely empty cans should be recycled.

14 Transport information

ADR 1263 Paint

Transport hazard class(es):

Class 3 Flammable liquids

Marine pollutant: No

Special precautions for user: Warning: Flammable liquids

EMS Number: F-E,S-E

Packaging Group: II

UN "Model Regulation": UN1263, Paint, 3, II

15 Regulatory information

SARA Section 355 (extremely hazardous substances):
None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):
7727-43-7 | barium sulfate
1330-20-7 | xylene (mix)

Toxic Substances Control Act (TSCA): All hazardous ingredients for this product are found on the inventory list of substances.

Consumer Product Safety Commission (CPSC): This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:
13463-67-7 | titanium dioxide
100-41-4 | ethyl benzene

California Proposition 65 chemicals known to cause birth defects or reproductive harm:
None of the ingredients in this product are listed.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All hazardous ingredients for this product appear on the Canadian Domestic Substance List.

EPA:

7727-43-7 barium sulfate	D, CBD(inh), NL(oral)
1330-20-7 xylene (mix)	I

16 Other information

Contact: Regulatory Affairs

1 Identification of the substance and manufacturer

Trade name:	MRO LIGHT GRAY PRIMER	
Product code:	0006201431	
Product category:	PC9a Paints and coatings.	
Manufacturer/Supplier:	Seymour of Sycamore 917 Crosby Avenue Sycamore, IL 60178 Phone: 815-895-9101 www.seymourpaint.com	
Emergency telephone number:	CHEMTEL 1-800-255-3924, 813-248-0585 *if located outside the U.S.*	

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Aerosol 1	H222	Extremely flammable aerosol.
Press. Gas	H280	Contains gas under pressure; may explode if heated.
Carc. 2	H351	Suspected of causing cancer.
Repr. 2	H361	Suspected of damaging fertility or the unborn child.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2A	H319	Causes serious eye irritation.
STOT SE 3	H336	May cause drowsiness or dizziness.

GHS Hazard pictograms



Signal word

Hazard statements

Danger
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.

Precautionary statements

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Obtain special instructions before use.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Use personal protective equipment as required.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation occurs: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash before reuse.
IF exposed or concerned: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Specific treatment (see on this label).
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
67-64-1	Acetone	23.24%
74-98-6	propane	12.6%
13463-67-7	titanium dioxide	7.43%
106-97-8	n-butane	7.4%
108-88-3	Toluene	6.08%
64742-89-8	VM&P Naphtha	5.62%
14807-96-6	Talc	4.3%
1330-20-7	xylene (mix)	3.96%
64-17-5	ethyl alcohol	3.81%
64742-47-8	Mineral Spirits	3.0%

Trade name: MRO LIGHT GRAY PRIMER

(Contd. of page 1)

123-86-4	n-butyl acetate	2.67%
110-19-0	isobutyl acetate	1.52%
108-65-6	PM acetate	1.31%

4 First-aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Rinse out mouth and then drink plenty of water.
 Rinse mouth with water. Do not induce vomiting.

Most important symptoms and effects: Dizziness

Indication of any immediate medical attention needed: No further relevant information available.

5 Fire-fighting measures

Extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray.
Special hazards: Can form explosive gas-air mixtures.
Protective equipment for firefighters: A respiratory protective device may be necessary.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.
 Use respiratory protective device against the effects of fumes/dust/aerosol.

Methods and material for containment and cleaning up: Ensure adequate ventilation.
 Dispose contaminated material as waste according to section 13.

7 Handling and storage

Precautions for safe handling: Use only in well ventilated areas.
Storage requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions.
 Store locked up.

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

67-64-1 Acetone

REL (USA) Long-term value: 2400 mg/m³, 1000 ppm
 REL (USA) Long-term value: 590 mg/m³, 250 ppm
 TLV (USA) Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm
 Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm
 BEI

74-98-6 propane

REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
 REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
 TLV (USA) refer to Appendix F

106-97-8 n-butane

REL (USA) Long-term value: 1900 mg/m³, 800 ppm
 TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

108-88-3 Toluene

REL (USA) Long-term value: 200 ppm
 Ceiling limit value: 300; 500* ppm
 *10-min peak per 8-hr shift
 REL (USA) Short-term value: 560 mg/m³, 150 ppm
 Long-term value: 375 mg/m³, 100 ppm
 TLV (USA) Long-term value: 75 mg/m³, 20 ppm
 BEI

1330-20-7 xylene (mix)

REL (USA) Long-term value: 435 mg/m³, 100 ppm
 REL (USA) Short-term value: 655 mg/m³, 150 ppm
 Long-term value: 435 mg/m³, 100 ppm
 TLV (USA) Short-term value: 651 mg/m³, 150 ppm
 Long-term value: 434 mg/m³, 100 ppm
 BEI

(Contd. on page 3)
USA

Trade name: MRO LIGHT GRAY PRIMER

(Contd. of page 2)

64-17-5 ethyl alcohol	
PEL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m ³ , 1000 ppm
123-86-4 n-butyl acetate	
PEL (USA)	Long-term value: 710 mg/m ³ , 150 ppm
REL (USA)	Short-term value: 950 mg/m ³ , 200 ppm
	Long-term value: 710 mg/m ³ , 150 ppm
TLV (USA)	Short-term value: 950 mg/m ³ , 200 ppm
	Long-term value: 713 mg/m ³ , 150 ppm
110-19-0 isobutyl acetate	
PEL (USA)	Long-term value: 700 mg/m ³ , 150 ppm
REL (USA)	Long-term value: 700 mg/m ³ , 150 ppm
TLV (USA)	Long-term value: 713 mg/m ³ , 150 ppm
108-65-6 PM acetate	
WEEL (USA)	Long-term value: 50 ppm
Ingredients with biological limit values:	
67-64-1 Acetone	
BEI (USA)	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
108-88-3 Toluene	
BEI (USA)	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene
	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)
1330-20-7 xylene (mix)	
BEI (USA)	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

Hygienic protection: Keep away from foodstuffs and animal feed. Wash hands after use. Immediately remove all soiled and contaminated clothing. Wash hands after use. Avoid contact with the eyes and skin. Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure exists, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles

9 Physical and chemical properties

Appearance: Aerosol.
Odor: Aromatic
Odor threshold: Not determined.
pH-value: Not determined.
Melting point/Melting range Undetermined.
Boiling point: -110 °C (-166 °F)
Flash point: -19 °C (-2 °F)
Flammability (solid, gas): Extremely flammable.
Decomposition temperature: Not determined.
Auto igniting: Product is not self-igniting.
Danger of explosion: In use, may form flammable/explosive vapour-air mixture.
Lower Explosion Limit: 1.7 Vol %
Upper Explosion Limit: 10.9 Vol %
Vapor pressure: Not determined.

Trade name: MRO LIGHT GRAY PRIMER

(Contd. of page 3)

Relative Density:	Between 0.77 and 0.85 (Water equals 1.00)
Vapour density	Not determined.
Evaporation rate	Not applicable.
Partition coefficient: n-octonal/water:	Not determined.
Solubility:	Not determined.
Viscosity:	Not determined.
VOC content:	568.7 g/l / 4.75 lb/gl
VOC content (less exempt solvents):	50.7 %
MIR Value:	1.10
Solids content:	25.5 %

10 Stability and reactivity

Reactivity:	Stable at normal temperatures.
Conditions to avoid:	Do not allow can to exceed 120 degrees Fahrenheit. Do not warehouse in subfreezing temperatures.
Chemical stability:	Not fully evaluated.
Possibility of hazardous reactions:	No dangerous reactions known.
Incompatible materials:	No further relevant information available.
Hazardous decomposition:	No dangerous decomposition products known.

11 Toxicological information

LD/LC50 values that are relevant for classification:

13463-67-7 titanium dioxide

Oral	LD50	>20000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rbt)
Inhalative	LC50/4 h	>6.82 mg/l (rat)

106-97-8 n-butane

Inhalative	LC50/4 h	658 mg/l (rat)
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1330-20-7 xylene (mix)

Oral	LD50	8700 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rbt)
Inhalative	LC50/4 h	6350 mg/l (rat)

64-17-5 ethyl alcohol

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)

123-86-4 n-butyl acetate

Oral	LD50	14000 mg/kg (rat)
Inhalative	LC50/4 h	>21.0 mg/l (rat)

110-19-0 isobutyl acetate

Oral	LD50	4763 mg/kg (rbt)
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108-65-6 PM acetate

Oral	LD50	8500 mg/kg (rat)
Inhalative	LC50/4 h	35.7 mg/l (rat)

Information on toxicological effects: No data available.
Sensitization: No sensitizing effects known.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

13463-67-7	titanium dioxide	2B
108-88-3	Toluene	3
14807-96-6	Talc	2B
1330-20-7	xylene (mix)	3
64-17-5	ethyl alcohol	1

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Aquatic toxicity:	Hazardous for water, do not empty into drains.
Persistence and degradability:	The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.

(Contd. on page 5)
-US4-

Trade name: MRO LIGHT GRAY PRIMER

Other adverse effects: No further relevant information available.

(Contd. of page 4)

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.

Recommendation: Completely empty cans should be recycled.

14 Transport information

UN-Number UN1950
DOT Aerosols, flammable
ADR 1950 Aerosols
Transport hazard class(es):
Class 2.1
Marine pollutant: No
Special precautions for user: Warning: Gases
EMS Number: F-D,S-U
Packaging Group: -
UN "Model Regulation": UN1950, Aerosols, 2.1

15 Regulatory information

SARA Section 355 (extremely hazardous substances):

None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):

108-88-3	Toluene
1330-20-7	xylene (mix)

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

13463-67-7	titanium dioxide
100-41-4	ethyl benzene
1333-86-4	Carbon black
108-10-1	methyl isobutyl ketone

California Proposition 65 chemicals known to cause developmental toxicity:

108-88-3 Toluene
67-56-1 Methanol

EPA:

67-64-1	Acetone	I
108-88-3	Toluene	II
1330-20-7	xylene (mix)	I
110-19-0	isobutyl acetate	D

16 Other information

Contact: Regulatory Affairs

1 Identification of the substance and manufacturer

Trade name: MRO GLOSS WHITE
Product code: 0006201413
Product category: PC9a Paints and coatings.
Manufacturer/Supplier: Seymour of Sycamore
 917 Crosby Avenue
 Sycamore, IL 60178
 Phone: 815-895-9101 www.seymourpaint.com
Emergency telephone number: CHEMTEL 1-800-255-3924, 813-248-0585 *if located outside the U.S.*



2 Hazard(s) identification

Classification of the substance or mixture

Flam. Aerosol 1 H222 Extremely flammable aerosol.
 Press. Gas H280 Contains gas under pressure; may explode if heated.
 Carc. 2 H351 Suspected of causing cancer.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 STOT SE 3 H336 May cause drowsiness or dizziness.

GHS Hazard pictograms



GHS02 GHS04 GHS07 GHS08

Signal word

Hazard statements

Danger
 Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 Causes serious eye irritation.
 Suspected of causing cancer.
 May cause drowsiness or dizziness.

Precautionary statements

May cause damage to organs through prolonged or repeated exposure.
 If medical advice is needed, have product container or label at hand.
 Keep out of reach of children.
 Read label before use.
 Obtain special instructions before use.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Do not spray on an open flame or other ignition source.
 Pressurized container: Do not pierce or burn, even after use.
 Wash hands thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Do not handle until all safety precautions have been read and understood.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Use personal protective equipment as required.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF exposed or concerned: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 Store in a well-ventilated place. Keep container tightly closed.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:

67-64-1	Acetone	17.81%
74-98-6	propane	15.74%
13463-67-7	titanium dioxide	11.31%
106-97-8	n-butane	9.24%
108-10-1	methyl isobutyl ketone	5.65%
7727-43-7	barium sulphate, natural	5.01%
2807-30-9	Glycol Ether EP	4.81%
110-19-0	isobutyl acetate	4.57%
107-87-9	Methyl Propyl Ketone	2.94%
1330-20-7	xylene (mix)	2.43%

4 First-aid measures

After inhalation:

Supply fresh air; consult doctor in case of complaints.

After skin contact:

Remove contaminated clothing. Wash exposed area with soap and water.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Trade name: MRO GLOSS WHITE

(Contd. of page 1)

After swallowing: Rinse out mouth and then drink plenty of water.
Rinse mouth with water. Do not induce vomiting.

Most important symptoms and effects: Dizziness

Indication of any immediate medical attention needed: No further relevant information available.

5 Fire-fighting measures

Extinguishing agents: CO2, sand, extinguishing powder, or water spray. Fight larger fires with water spray or alcohol resistant foam.
CO2, extinguishing powder or water spray. Fight larger fires with water spray.
Can form explosive gas-air mixtures.

Special hazards:

Protective equipment for firefighters: A respiratory protective device may be necessary.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.
Use respiratory protective device against the effects of fumes/dust/aerosol.

Methods and material for containment and cleaning up: Ensure adequate ventilation.

7 Handling and storage

Precautions for safe handling: Use only in well ventilated areas.

Storage requirements: Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions.
Store locked up.

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

67-64-1 Acetone

PEL (USA) Long-term value: 2400 mg/m³, 1000 ppm
REL (USA) Long-term value: 590 mg/m³, 250 ppm
TLV (USA) Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm
Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm
BEI

74-98-6 propane

PEL (USA) Long-term value: 1800 mg/m³, 1000 ppm
REL (USA) Long-term value: 1800 mg/m³, 1000 ppm
TLV (USA) refer to Appendix F

106-97-8 n-butane

REL (USA) Long-term value: 1900 mg/m³, 800 ppm
TLV (USA) Short-term value: 2370 mg/m³, 1000 ppm

108-10-1 methyl isobutyl ketone

PEL (USA) Long-term value: 410 mg/m³, 100 ppm
REL (USA) Short-term value: 300 mg/m³, 75 ppm
Long-term value: 205 mg/m³, 50 ppm
TLV (USA) Short-term value: 307 mg/m³, 75 ppm
Long-term value: 82 mg/m³, 20 ppm
BEI

7727-43-7 barium sulphate, natural

PEL (USA) Long-term value: 15* 5** mg/m³
*total dust **respirable fraction
REL (USA) Long-term value: 10* 5** mg/m³
*total dust **respirable fraction
TLV (USA) Long-term value: 5* mg/m³
*inhalable fraction; E

110-19-0 isobutyl acetate

PEL (USA) Long-term value: 700 mg/m³, 150 ppm
REL (USA) Long-term value: 700 mg/m³, 150 ppm
TLV (USA) Long-term value: 713 mg/m³, 150 ppm

107-87-9 Methyl Propyl Ketone

PEL (USA) Long-term value: 700 mg/m³, 200 ppm
REL (USA) Long-term value: 530 mg/m³, 150 ppm
TLV (USA) Short-term value: 529 mg/m³, 150 ppm

(Contd. on page 3)

Trade name: MRO GLOSS WHITE

(Contd. of page 2)

1330-20-7 xylene (mix)	
PEL (USA)	Long-term value: 435 mg/m ³ , 100 ppm
REL (USA)	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV (USA)	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI
Ingredients with biological limit values:	
67-64-1 Acetone	
BEI (USA)	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
108-10-1 methyl isobutyl ketone	
BEI (USA)	1 mg/L Medium: urine Time: end of shift Parameter: MIBK
1330-20-7 xylene (mix)	
BEI (USA)	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

Hygienic protection: Keep away from foodstuffs and animal feed. Wash hands after use. Immediately remove all soiled and contaminated clothing. Wash hands after use. Avoid contact with the eyes and skin. Do not eat or drink while working.

Breathing equipment: A respirator is generally not necessary when using this product outdoors or in large open areas. In cases where short and/or long term overexposure exists, a charcoal filter respirator should be worn. If you suspect overexposure conditions exist, please consult an authority on chemical hygiene.

Hand protection: Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection: Tightly sealed goggles

9 Physical and chemical properties

Appearance: Aerosol.
Odor: Aromatic
Odor threshold: Not determined.
pH-value: Not determined.
Melting point/Melting range Undetermined.
Boiling point: -44 °C (-47 °F)
Flash point: -19 °C (-2 °F)
Flammability (solid, gas): Extremely flammable.
Decomposition temperature: Not determined.
Auto igniting: Product is not self-igniting.
Danger of explosion: In use, may form flammable/explosive vapour-air mixture.
Lower Explosion Limit: 1.7 Vol %
Upper Explosion Limit: 10.9 Vol %
Vapor pressure: Not determined.
Relative Density: Between 0.77 and 0.85 (Water equals 1.00)
Vapour density Not determined.
Evaporation rate Not applicable.
Partition coefficient: n-octanol/water: Not determined.
Solubility: Not determined.
Viscosity: Not determined.
VOC content: 497.1 g/l / 4.15 lb/gl
VOC content (less exempt solvents): 46.0 %
MIR Value: 1.05
Solids content: 35.4 %

10 Stability and reactivity

Reactivity: Stable at normal temperatures.
Conditions to avoid: Do not allow can to exceed 120 degrees Fahrenheit. Do not warehouse in subfreezing temperatures.
Chemical stability: Not fully evaluated.
Possibility of hazardous reactions: No dangerous reactions known.
Incompatible materials: No further relevant information available.

(Contd. on page 4)
USA

Trade name: MRO GLOSS WHITE

(Contd. of page 3)

Hazardous decomposition: No dangerous decomposition products known.

11 Toxicological information

LD/LC50 values that are relevant for classification:		
13463-67-7 titanium dioxide		
Oral	LD50	>20000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rbt)
Inhalative	LC50/4 h	>6.82 mg/l (rat)
106-97-8 n-butane		
Inhalative	LC50/4 h	658 mg/l (rat)
108-10-1 methyl isobutyl ketone		
Oral	LD50	2100 mg/kg (rat)
Dermal	LD50	16000 mg/kg (rab)
Inhalative	LC50/4 h	8.3-16.6 mg/l (rat)
110-19-0 isobutyl acetate		
Oral	LD50	4763 mg/kg (rbt)
1330-20-7 xylene (mix)		
Oral	LD50	8700 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rbt)
Inhalative	LC50/4 h	6350 mg/l (rat)
Information on toxicological effects: No data available.		
Sensitization: No sensitizing effects known.		
Carcinogenic categories		
IARC (International Agency for Research on Cancer)		
13463-67-7	titanium dioxide	2B
108-10-1	methyl isobutyl ketone	2B
1330-20-7	xylene (mix)	3
NTP (National Toxicology Program)		
None of the ingredients is listed.		
OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

Aquatic toxicity:	Hazardous for water, do not empty into drains.
Persistence and degradability:	The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Other adverse effects:	No further relevant information available.

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.

Recommendation: Completely empty cans should be recycled.

14 Transport information

UN-Number	UN1950
DOT	Aerosols, flammable
ADR	1950 Aerosols
Transport hazard class(es):	
Class	2.1
Marine pollutant:	No
Special precautions for user:	Warning: Gases
EMS Number:	F-D,S-U
Packaging Group:	-
UN "Model Regulation":	UN1950, Aerosols, 2.1

15 Regulatory information

SARA Section 355 (extremely hazardous substances):		
None of the ingredients in this product are listed.		
SARA Section 313 (Specific toxic chemical listings):		
108-10-1	methyl isobutyl ketone	
7727-43-7	barium sulphate, natural	
1330-20-7	xylene (mix)	

Safety Data Sheet
acc. to OSHA HCS

Printing date 09/25/2014

Revised On 09/25/2014

Trade name: MRO GLOSS WHITE

(Contd. of page 4)

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

13463-67-7	titanium dioxide
108-10-1	methyl isobutyl ketone
100-41-4	ethyl benzene

EPA:

67-64-1	Acetone	I
108-10-1	methyl isobutyl ketone	I
7727-43-7	barium sulphate, natural	D, CBD(inh), NL(oral)
110-19-0	isobutyl acetate	D
1330-20-7	xylene (mix)	I

USDA (United States Department of Agriculture):

Category 21: This product was manufactured to conform to the USDA Food Safety and Inspection Service performance standards. These standards include, but are not limited to, the ability of this product to be safe for use in official meat and poultry establishments, and to perform well under a daily regimen of thorough cleaning, cyclical temperature change, and wet conditions. This product may be used where there is a possibility of incidental food contact.

16 Other information

Contact: Regulatory Affairs

1 Identification of the substance and manufacturer

Trade name: MRO GLOSS BLACK (BULK)
Product code: 0000011415
Manufacturer/Supplier: Seymour of Sycamore
 917 Crosby Avenue
 Sycamore, IL 60178 USA
 phone: 815-895-9101
 www.seymourpaint.com
Emergency telephone number: 1-800-255-3924

Seymour of Sycamore
 3041 Dougall Avenue, Suite 503
 Windsor, ONT N9E 1S3 CANADA
 phone: 800-435-4482
 www.seymourpaint.com

2 Hazard(s) identification**Classification of the substance or mixture**

Flam. Liq. 3 H226 Flammable liquid and vapor.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS Hazard pictograms

GHS02 GHS07 GHS08

Signal word

Warning

Hazard statements

Flammable liquid and vapor.

Causes serious eye irritation.

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients**Chemical characterization: Mixtures****Chemical Description:**

This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:

64742-47-8	Mineral Spirits	20.27%
7727-43-7	barium sulfate	17.29%
108-65-6	PM acetate	4.11%
1333-86-4	Carbon black	1.35%
64742-48-9	Naphtha, hydrotreated heavy	1.28%
1330-20-7	xylene (mix)	1.19%

4 First-aid measures**After skin contact:**

Remove contaminated clothing. Wash exposed area with soap and water.

After eye contact:

Rinse opened eye for several minutes under running water.

After swallowing:

Rinse mouth with water. Do not induce vomiting.

Most important symptoms and effects:

No further relevant information available.

Indication of any immediate medical attention needed:

No further relevant information available.

5 Fire-fighting measures**Special hazards:**

No further relevant information available.

Protective equipment for firefighters:

No special measures required.

6 Accidental release measures**Personal precautions, protective equipment and emergency procedures:**

Not required.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage**Precautions for safe handling**

Use only in well ventilated areas.

Trade name: MRO GLOSS BLACK (BULK)

Storage requirements:

Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up. (Contd. of page 1)

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

7727-43-7 barium sulfate

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 5* mg/m ³ *inhalable fraction; E

108-65-6 PM acetate

WEEL (USA)	Long-term value: 50 ppm
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1333-86-4 Carbon black

PEL (USA)	Long-term value: 3.5 mg/m ³
REL (USA)	Long-term value: 3.5* mg/m ³ *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV (USA)	Long-term value: 3* mg/m ³ *inhalable fraction

1330-20-7 xylene (mix)

PEL (USA)	Long-term value: 435 mg/m ³ , 100 ppm
REL (USA)	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV (USA)	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI

Ingredients with biological limit values:

1330-20-7 xylene (mix)

BEI (USA)	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
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Hygienic protection:

Wash hands after use.
Do not eat or drink while working.

Breathing equipment:

Not required.

Hand protection:

Nitrile gloves.

Eye protection:

The glove material must be impermeable and resistant to the substance.
Tightly sealed goggles

9 Physical and chemical properties

Appearance:	Liquid.
Odor threshold:	Not determined.
pH-value:	Not determined.
Melting point/Melting range	Undetermined.
Boiling point:	157 °C (314.6 °F)
Flash point:	43 °C (109.4 °F)
Flammability (solid, gas):	Flammable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	In use, may form flammable/explosive vapour-air mixture.
Lower Explosion Limit:	0.5 Vol %
Upper Explosion Limit:	6.5 Vol %
Vapor pressure:	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Partition coefficient: n-octanol/water:	Not determined.
Solubility:	Not determined.
Viscosity:	Not determined.
Water:	0.0 %

10 Stability and reactivity

Conditions to avoid:	No decomposition if used according to specifications.
Possibility of hazardous reactions:	No dangerous reactions known.
Incompatible materials:	No further relevant information available.
Hazardous decomposition:	No dangerous decomposition products known.

Trade name: MRO GLOSS BLACK (BULK)

(Contd. of page 2)

11 Toxicological information**LD/LC50 values that are relevant for classification:****108-65-6 PM acetate**

Oral LD50 8,500 mg/kg (rat)

Inhalative LC50/4 h 35.7 mg/l (rat)

1333-86-4 Carbon black

Oral LD50 10,000 mg/kg (rat)

64742-48-9 Naphtha, hydrotreated heavy

Oral LD50 >5,000 mg/kg (rat)

Dermal LD50 >3,000 mg/kg (rab)

1330-20-7 xylene (mix)

Oral LD50 8,700 mg/kg (rat)

Dermal LD50 2,000 mg/kg (rbt)

Inhalative LC50/4 h 6,350 mg/l (rat)

Information on toxicological effects: No data available.**Skin effects:** No irritant effect.**Eye effects:** No irritating effect.**Sensitization:** No sensitizing effects known.**12 Ecological information****Aquatic toxicity:** Hazardous for water, do not empty into drains.**Persistence and degradability:** The product is degradable after prolonged exposure to natural weathering processes.**Bioaccumulative potential:** No further relevant information available.**Mobility in soil:** No further relevant information available.**Other adverse effects:** No further relevant information available.**13 Disposal considerations**

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.

Recommendation: Completely empty cans should be recycled.**14 Transport information:****ADR** 1263 Paint**Transport hazard class(es):****Class** 3 Flammable liquids**Marine pollutant:** No**Special precautions for user:** Warning: Flammable liquids**EMS Number:** F-E,S-E**Stowage Category** A**Quantity limitations** On passenger aircraft/rail: 60 L

On cargo aircraft only: 220 L

ADR**Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

IMDG**Limited quantities (LQ)**

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Packaging Group:

III

UN "Model Regulation":

UN 1263 PAINT, 3, III

15 Regulatory information**SARA Section 355 (extremely hazardous substances):**

None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):

7727-43-7 | barium sulfate

1330-20-7 | xylene (mix)

Toxic Substances Control Act**(TSCA):**

All hazardous ingredients for this product are found on the inventory list of substances.

Consumer Product Safety**Commission (CPSC):**

This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

1333-86-4 | Carbon black

100-41-4 | ethyl benzene

California Proposition 65 chemicals known to cause birth defects or reproductive harm:

None of the ingredients in this product are listed

Safety Data Sheet

Printing date 01/02/2018

Revised On 01/02/2018

Trade name: MRO GLOSS BLACK (BULK)

WHMIS Symbols for Canada:

B3 - Combustible liquid

(Contd. of page 3)



EPA:

7727-43-7 | barium sulfate

D, CBD(inh), NL(oral)

1330-20-7 | xylene (mix)

I

16 Other information

Contact:

Regulatory Affairs

Date of preparation / last revision

01/02/2018 / -

1 Identification of the substance and manufacturer

Trade name: MRO LIGHT GRAY PRIMER(GALLONS)
Product code: 0000011431
Product category: PC9a Paints and coatings.
Manufacturer/Supplier: Seymour of Sycamore
 917 Crosby Avenue
 Sycamore, IL 60178
 Phone: 815-895-9101 www.seymourpaint.com
Emergency telephone number: CHEMTEL 1-800-255-3924, or 813-248-0585.

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Liq. 2 H225 Highly flammable liquid and vapor.
 Acute Tox. 4 H302 Harmful if swallowed.
 Skin Irrit. 2 H315 Causes skin irritation.
 STOT SE 3 H335 May cause respiratory irritation.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
GHS Hazard pictograms



GHS02 GHS07 GHS08

Signal word

Hazard statements

Danger
 Highly flammable liquid and vapor.
 Harmful if swallowed.
 Causes skin irritation.
 May cause respiratory irritation.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Wash hands thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves / eye protection / face protection.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting/equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 In case of fire: Use for extinction: CO2, powder or water spray.
 If skin irritation occurs: Get medical advice/attention.
 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 Get medical advice/attention if you feel unwell.
 Rinse mouth.
 Specific treatment (see on this label).
 Take off contaminated clothing and wash it before reuse.
 Store locked up.
 Store in a well-ventilated place. Keep container tightly closed.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Chemical Description: This product is a mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
1317-65-3	Calcium Carbonate	46.16%
98-56-6	p-Chlorobenzotrifluoride	12.92%
64742-47-8	Mineral Spirits	8.08%
13463-67-7	titanium dioxide	6.53%
557-05-1	zinc stearate	3.4%
66402-68-4	Calcium Strontium Zinc Phosphosilicate	2.63%
8002-43-5	Soya Lecithin	1.11%
8052-41-3	Stoddard Solvent	0.19%

4 First-aid measures

After skin contact: Remove contaminated clothing. Wash exposed area with soap and water.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Rinse mouth with water. Do not induce vomiting.
Most important symptoms and effects: No further relevant information available.
Indication of any immediate medical attention needed: No further relevant information available.

5 Fire-fighting measures

Special hazards: No further relevant information available

Trade name: MRO LIGHT GRAY PRIMER(GALLONS)

(Contd. of page 1)

Protective equipment for firefighters: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Not required.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

7 Handling and storage

Precautions for safe handling
Storage requirements:

Use only in well ventilated areas.

Keep away from sources of heat and direct sunlight. Do not warehouse in subfreezing conditions. Store locked up.

8 Exposure controls/personal protection**Components with limit values that require monitoring at the workplace:****557-05-1 zinc stearate**

PEL (USA) Long-term value: 15* 5** mg/m³
*total dust **respirable fraction

REL (USA) Long-term value: 10* 5** mg/m³
*total dust **respirable fraction

TLV (USA) Long-term value: 10 mg/m³

8052-41-3 Stoddard Solvent

PEL (USA) Long-term value: 2900 mg/m³, 500 ppm

REL (USA) Long-term value: 350 mg/m³
Ceiling limit value: 1800* mg/m³
*15-min

TLV (USA) Long-term value: 525 mg/m³, 100 ppm

Hygienic protection: Immediately remove all soiled and contaminated clothing.

Wash hands after use.

Do not eat or drink while working.

Breathing equipment:

Not required.

Hand protection:

Nitrile gloves.

Protective gloves. The glove material must be impermeable and resistant to the substance.

Eye protection:

Tightly sealed goggles

9 Physical and chemical properties

Appearance: Liquid.

Odor threshold: Not determined.

pH-value: Not determined.

Melting point/Melting range: Undetermined.

Boiling point: 139 °C (282 °F)

Flash point: -19 °C (-2 °F)

Flammability (solid, gas): Highly flammable.

Decomposition temperature: Not determined.

Auto igniting: Product is not self-igniting.

Danger of explosion: In use, may form flammable/explosive vapour-air mixture.

Lower Explosion Limit: Not determined.

Upper Explosion Limit: Not determined.

Vapor pressure: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Partition coefficient: n-octanol/water: Not determined.

Solubility: Not determined.

Viscosity: Not determined.

VOC content: 33.6 g/l / 0.28 lb/gl

VOC content (less exempt solvents): 10.2 %

MIR Value: 0.00

Solids content: 75.4 %

10 Stability and reactivity

Conditions to avoid: No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Incompatible materials: No further relevant information available.

Hazardous decomposition: No dangerous decomposition products known.

(Contd. on page 3)

Trade name: MRO LIGHT GRAY PRIMER(GALLONS)

(Contd. of page 2)

11 Toxicological information**LD/LC50 values that are relevant for classification:****13463-67-7 titanium dioxide**

Oral	LD50	>20000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rbt)
Inhalative	LC50/4 h	>6.82 mg/l (rat)

Information on toxicological effects: No data available.
Skin effects: No irritant effect.
Eye effects: No irritating effect.
Sensitization: No sensitizing effects known.

Carcinogenic categories**IARC (International Agency for Research on Cancer)**

13463-67-7 titanium dioxide

2B

NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

Aquatic toxicity: Hazardous for water, do not empty into drains.
Persistence and degradability: The product is degradable after prolonged exposure to natural weathering processes.
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Other adverse effects: No further relevant information available.

13 Disposal considerations

Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Partially empty cans must be disposed of responsibly. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Completely empty cans should be recycled.

14 Transport information

UN-Number UN1263
DOT UN1263
DOT Paint
ADR 1263 Paint
Transport hazard class(es):
Class 3 Flammable liquids
Marine pollutant: No
Special precautions for user: Warning: Flammable liquids
EMS Number: F-E,S-E
Quantity limitations On passenger aircraft/rail: 5 L
 On cargo aircraft only: 60 L

ADR
Excepted quantities (EQ) Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml

IMDG

Limited quantities (LQ) 5L
Excepted quantities (EQ) Code: E2
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation": UN1263, Paint, 3, II

15 Regulatory information**SARA Section 355 (extremely hazardous substances):**

None of the ingredients in this product are listed.

SARA Section 313 (Specific toxic chemical listings):

557-05-1 zinc stearate

CPSC: This product complies with 16 CFR 1303 and does not contain more than 90 ppm of lead.

California Proposition 65 chemicals known to cause cancer:

13463-67-7 titanium dioxide
 100-41-4 ethyl benzene
 1333-86-4 Carbon black

**CANADIAN ENVIRONMENTAL
 PROTECTION ACT:**
WHMIS Symbols for Canada:

All hazardous ingredients for this product appear on the Canadian Domestic Substance List.
 B2 - Flammable liquid



(Contd. on page 4)

Safety Data Sheet

Printing date 01/22/2016

Revised On 01/22/2016

Trade name: MRO LIGHT GRAY PRIMER(GALLONS)

(Contd. of page 3)

EPA:

557-05-1 | zinc stearate

| D, I, II

16 Other information

Contact: Regulatory Affairs
Date of preparation / last revision 01/22/2016 / -



SAFETY DATA SHEET

Revision Date 21-Feb-2019

Version 5

1. IDENTIFICATION

Product Identifier

Product Name 161DA PAINT STRIPPER 12 OZ AE

Other means of identification

Product Code 80577

Recommended use of the chemical and restrictions on use

Recommended Use Adhesive Remover
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
6875 Parkland Blvd.
Solon, Ohio 44139 USA
Telephone: 1-87-Permatex
(866) 732-9502

May Also Be Distributed by:

ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

24-hour emergency phone number

Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address: mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 1
Flammable aerosols	Category 1
Gases under pressure	Liquefied gas

Label elements

Emergency Overview

Signal word

Danger

Harmful if swallowed
Suspected of causing cancer
Causes damage to organs
Extremely flammable aerosol
Contains gas under pressure; may explode if heated



Appearance Clear

Physical state Liquid

Odor Ether

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Do not spray on an open flame or other ignition source
 Do not puncture or incinerate container

Precautionary Statements - Response

Specific treatment (see .? on this label)

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

In case of fire: Use CO2, dry chemical, or foam to extinguish.

Precautionary Statements - Storage

Store locked up

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

May be harmful in contact with skin

Unknown acute toxicity

7.5 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
DICHLOROMETHANE	75-09-2	60-80
BUTANE	106-97-8	10 - 30
PROPANE	74-98-6	3 - 7
METHANOL	67-56-1	3 - 7
PROPYLENE OXIDE	75-56-9	0.1 - 1

4. FIRST AID MEASURES

Description of first aid measures

General advice

Get medical advice/attention if you feel unwell.

Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	IF ON SKIN: Wash skin with soap and water. If skin irritation persists, call a physician. Take off contaminated clothing and wash before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media
None

Specific hazards arising from the chemical
Extremely flammable. Heating causes rise in pressure with risk of bursting. Vapors may travel to source of ignition and flash back. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Contents under pressure. Do not puncture or incinerate cans. Wash thoroughly after handling.

Environmental precautions

Environmental precautions See section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Soak up with

inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required. Remove all sources of ignition. Contents under pressure. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not puncture or incinerate cans.

Conditions for safe storage, including any incompatibilities

Storage Conditions Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Incompatible materials Strong oxidizing agents, Metals

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
DICHLOROMETHANE 75-09-2	TWA: 50 ppm	TWA: 25 ppm (vacated) TWA: 500 ppm (vacated) STEL: 2000 ppm 5 min in any 3 h (vacated) Ceiling: 1000 ppm STEL: 125 ppm see 29 CFR 1910.1052	IDLH: 2300 ppm
BUTANE 106-97-8	STEL: 1000 ppm	(vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	TWA: 800 ppm TWA: 1900 mg/m ³
PROPANE 74-98-6	See Appendix F: Minimal Oxygen Content	TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³
METHANOL 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³
PROPYLENE OXIDE 75-56-9	TWA: 2 ppm	TWA: 100 ppm TWA: 240 mg/m ³ (vacated) TWA: 20 ppm (vacated) TWA: 50 mg/m ³	IDLH: 400 ppm

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.
Respiratory protection	Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Odor	Ether
Odor threshold	No information available

<u>Property</u>	<u>Values</u>
pH	No information available
Melting point / freezing point	No information available
Boiling point / boiling range	> 38 °C / > 100 °F
Flash point	-104 °C / -155 °F
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	20.4%
Lower flammability limit:	11.5%
Vapor pressure	35 psig @ 21.1°C (70°F)
Vapor density	No information available
Relative density	1.27
Water solubility	No information available
Solubility(ies)	No information available
Partition coefficient	No information available
Autoignition temperature	548.96°C (1020.13°F)
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Remarks • Method

Gives a flame projection at full valve opening or flashback at any degree of valve opening

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	26%
Density	No information available
Bulk density	No information available
SADT (self-accelerating decomposition temperature)	No information available

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents, Metals

Hazardous Decomposition Products

Carbon oxides
Hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

- Inhalation** Causes damage to organs if inhaled.
- Eye contact** Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
- Skin contact** May cause skin irritation and/or dermatitis.
- Ingestion** Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
DICHLOROMETHANE 75-09-2	= 1600 mg/kg (Rat)	-	= 53 mg/L (Rat) 6 h = 76000 mg/m ³ (Rat) 4 h
BUTANE 106-97-8	-	-	= 658 g/m ³ (Rat) 4 h
PROPANE 74-98-6	-	-	= 658 mg/L (Rat) 4 h
METHANOL 67-56-1	= 6200 mg/kg (Rat)	= 15800 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h = 64000 ppm (Rat) 4 h
PROPYLENE OXIDE 75-56-9	= 520 mg/kg (Rat)	= 1244 mg/kg (Rabbit)	= 0.948 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
DICHLOROMETHANE 75-09-2	A3	Group 2A	Reasonably Anticipated	X
PROPYLENE OXIDE 75-56-9	A3	Group 2B	Reasonably Anticipated	X

ACGIH (American Conference of Governmental Industrial Hygienists)
 A3 - Animal Carcinogen
 IARC (International Agency for Research on Cancer)
 Group 2A - Probably Carcinogenic to Humans
 Not classifiable as a human carcinogen
 Group 2B - Possibly Carcinogenic to Humans
 NTP (National Toxicology Program)
 Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Chronic toxicity May cause adverse liver effects.
Target Organ Effects Central nervous system, Central Vascular System (CVS), Eyes, Gastrointestinal tract (GI), Liver, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 1005 mg/kg

ATEmix (dermal) 5000 mg/kg
 ATEmix (inhalation-gas) 1492098 mg/l
 ATEmix (inhalation-dust/mist) 8.4 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

27.5 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Chemical Name	Partition coefficient
DICHLOROMETHANE 75-09-2	1.25
BUTANE 106-97-8	2.89
PROPANE 74-98-6	2.3
METHANOL 67-56-1	-0.77
PROPYLENE OXIDE 75-56-9	0.08

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging Do not reuse container.

US EPA Waste Number D001

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
DICHLOROMETHANE 75-09-2	Category I - Volatiles	-	Toxic waste waste number F025 Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	-

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
DICHLOROMETHANE 75-09-2	Toxic
METHANOL 67-56-1	Toxic Ignitable
PROPYLENE OXIDE 75-56-9	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID No 1950
 Proper shipping name: Aerosols, Limited Quantity (LQ)
 Hazard Class 2.1
 Emergency Response Guide Number 126

IATA

UN/ID No 1950
 Proper shipping name: Aerosols, flammable, containing, Substances, Division, 6.1, Packing group III, Limited Quantity (LQ)
 Hazard Class 2.1
 Subsidiary hazard class 6.1
 ERG Code 10P

IMDG

Proper shipping name: Do Not Ship

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
 DSL/NDSL Complies
 EINECS/ELINCS Complies
 ENCS Not determined
 IECSC Complies
 KECL Not determined
 PICCS Complies
 AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
DICHLOROMETHANE - 75-09-2	0.1
METHANOL - 67-56-1	1.0

PROPYLENE OXIDE - 75-56-9	0.1
---------------------------	-----

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
DICHLOROMETHANE 75-09-2	-	X	X	-
PROPYLENE OXIDE 75-56-9	100 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
DICHLOROMETHANE 75-09-2	1000 lb 1 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ
METHANOL 67-56-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
PROPYLENE OXIDE 75-56-9	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
DICHLOROMETHANE - 75-09-2	Carcinogen
METHANOL - 67-56-1	Developmental
PROPYLENE OXIDE - 75-56-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
DICHLOROMETHANE 75-09-2	X	X	X
BUTANE 106-97-8	X	X	X
METHANOL 67-56-1	X	X	X
PROPANE 74-98-6	X	X	X
OLEIC ACID 112-80-1	-	-	X
TRIETHANOLAMINE 102-71-6	X	X	X
PROPYLENE OXIDE 75-56-9	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

A - Compressed gases, B5 - Flammable aerosol, D2A - Very toxic materials, D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 2	Flammability 3	Instability 0	-
<u>HMIS</u>	Health hazards 2	Flammability 3	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 21-Feb-2019

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



PENRAY PENCOOL® 3000

COOLING SYSTEM TREATMENT

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 04/11/2014

Revision date: 04/11/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : PENRAY PENCOOL 3000 COOLING SYSTEM TREATMENT
Product code : 300016

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Cooling System Treatment.

1.3. Details of the supplier of the safety data sheet

The Penray Companies, Inc.
440 Denniston Ct.
60090 Wheeling, IL
T (800) 373-6729
rotto@penray.com

1.4. Emergency telephone number

Emergency number : (800) 373-6729
CHEMTREC (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Eye irritation 2A
Skin sensitization 1
Reproductive toxicity 2

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07



GHS08

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

Causes serious eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child.

Precautionary statements (GHS-US) :

Wash hands thoroughly after handling. Avoid breathing gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. If exposed or concerned: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

5 % of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Boric acid (HBO ₂), sodium salt, tetrahydrate	{CAS No} 10555-76-7	5 – 10	Eye Irrit. 2A Repr. 2
Sodium nitrite	{CAS No} 7632-00-0	3 – 7	Ox. Sol. 3 Acute Tox. 3 (Oral) Eye Irrit. 2A

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Name	Product Identifier	%	GHS-US classification
Sodium silicate	(CAS No) 1344-09-8	1 – 2	Acute Tox. 4 (Oral) Skin Irrit. 2 Eye Dam. 1 STOT SE 3
Sodium nitrate	(CAS No) 7631-99-4	0.5 – 1.5	Ox. Sol. 3 Acute Tox. 4 (Oral) Eye Irrit. 2A
Sodium mercaptobenzothiazole	(CAS No) 2492-26-4	< 0.5	Mel. Corr. 1 Skin Corr. 1C Eye Dam. 1 Skin Sens. 1
Methanol	(CAS No) 67-56-1	< 0.1	Flam. Liq. 2 Acute Tox. 3 (Oral, Dermal, Inhalation) Eye Irrit. 2B STOT SE 1
Phenolphthalein	(CAS No) 77-09-8	< 0.1	Muta. 2 Carc. 2 Repr. 2

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause sensitisation by skin contact.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Treat for surrounding material.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon, oxides of nitrogen.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

PENRAY PENCOOL® 3000

COOLING SYSTEM TREATMENT

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Do not swallow. Avoid breathing gas/fumes/vapor/spray. Handle and open container with care. When using do not eat, drink or smoke.
- Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store locked up.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methanol (67-56-1)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	250 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	260 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm

8.2. Exposure controls

- Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
- Personal protective equipment : Avoid all unnecessary exposure.
- Hand protection : Wear chemically resistant protective gloves.
- Eye protection : Safety glasses or goggles are recommended when using product.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Environmental exposure controls : Maintain levels below Community environmental protection thresholds.
- Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear.
- Colour : Pink.
- Odour : Odorless.
- Odour threshold : No data available.
- pH : < 11.5
- Relative evaporation rate (butylacetate=1) : No data available.
- Melting point : No data available.
- Freezing point : No data available.
- Boiling point : 100 - 102 °C (212 - 215 °F)
- Flash point : None.
- Self ignition temperature : No data available.
- Decomposition temperature : No data available.
- Flammability (solid, gas) : Not flammable.
- Vapour pressure : No data available.
- Relative vapour density at 20 °C : No data available.
- Relative density : 1.095 - 1.131
- Solubility : No data available.
- Log Pow : No data available.
- Log Kow : No data available.
- Viscosity, kinematic : No data available.
- Viscosity, dynamic : No data available.
- Explosive properties : No data available.

PENRAY PENCOOL® 3000

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Oxidising properties : No data available.
Explosive limits : No data available.

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No dangerous reaction known under conditions of normal use.

10.2. Chemical stability
Stable under normal storage conditions.

10.3. Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid
Incompatible materials.

10.5. Incompatible materials
Acids. Organic material. Strong reducing agents.

10.6. Hazardous decomposition products
May include, and are not limited to: oxides of carbon, oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified

300016	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 20 mg/l/4h
Sodium nitrite (7632-00-0)	
LD50 oral rat	180 mg/kg
LC50 inhalation rat (mg/l)	5.5 mg/l/4h
Sodium silicate (1344-09-8)	
LD50 oral rat	1153 mg/kg
LD50 dermal rabbit	> 4640 mg/kg
Sodium nitrate (7631-99-4)	
LD50 oral rat	1267 mg/kg
Sodium mercaptobenzothiazole (2492-26-4)	
LD50 oral rat	2100 mg/kg
LD50 dermal rabbit	> 7940 mg/kg
Methanol (67-56-1)	
LD50 oral rat	5628 mg/kg
LD50 dermal rabbit	15800 mg/kg
LC50 inhalation rat (mg/l)	83.2 mg/l/4h
Phenolphthalein (77-09-8)	
LD50 oral rat	> 2000 mg/kg

Skin corrosion/irritation : Based on available data, the classification criteria are not met.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Based on available data, the classification criteria are not met.
Carcinogenicity : Based on available data, the classification criteria are not met.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure) : Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure) : Based on available data, the classification criteria are not met.
Aspiration hazard : Based on available data, the classification criteria are not met.

PENRAY PENCOOL® 3000

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

- Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause sensitisation by skin contact.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

- Ecology – general : May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

300016	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

300016	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

- Other information : No supplementary information available.

Special transport precautions

- : Do not handle until all safety precautions have been read and understood.

PENRAY PENCOOL® 3000

COOLING SYSTEM TREATMENT

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 15: Regulatory information

15.1. US Federal regulations

Sodium nitrite (7632-00-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
EPA TSCA Regulatory Flag	S - S - indicates a substance that is identified in a proposed or final Significant New Uses Rule.
SARA Section 313 - Emission Reporting	1.0 %
Sodium silicate (1344-09-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Sodium nitrate (7631-99-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Sodium mercaptobenzothiazole (2492-26-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Methanol (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %
Phenolphthalein (77-09-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %

15.2. US State regulations

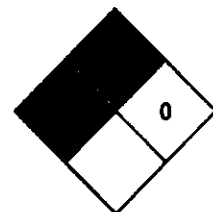
300016	
State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

IARC	International Agency for Research on Cancer.
	1 - Carcinogenic to humans; 2A - Probably carcinogenic to humans; 2B - Possibly carcinogenic to humans; 3 - Not classifiable; 4 - Probably not carcinogenic to humans.
NTP	National Toxicology Program.
	1 - Evidence of Carcinogenicity; 2 - Known Human Carcinogens; 3 - Reasonably anticipated to be Human Carcinogen; 4 - Substances delisted from report on Carcinogens; 5 - Twelfth Report - Items under consideration.

SECTION 16: Other information

Indication of changes	:	None.
Date of issue	:	04/11/2014
Other information	:	None.
NFPA health hazard	:	2
NFPA fire hazard	:	0
NFPA reactivity	:	0



This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



SAFETY DATA SHEET

1. Identification

Product identifier	Liquid Wrench Penetrating Oil		
Other means of identification			
SDS number	L112		
Part No.	L106, L112		
Tariff code	3403.19.5000		
Recommended use	Penetrating Oil		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier/Distributor information			
Manufacturer			
Company name	RSC Chemical Solutions		
Address	600 Radiator Road Indian Trail, NC 28079 United States		
Telephone	Customer Service:	(704) 821-7643	
	Technical:	(704) 684-1811	
Website	www.rscbrands.com		
E-mail	sds@rscbrands.com		
Emergency phone number	Emergency Telephone:	(303) 623-5716	
	Emergency Contact:	RMPDC (877) 740-5015	

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1B
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	
Label elements		



Signal word Danger

Hazard statement Flammable aerosol. Contains gas under pressure; may explode if heated. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves.

Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse mouth. Do NOT induce vomiting. If on skin: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Collect spillage.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

Combustible.

Supplemental information

97.91% of the mixture consists of component(s) of unknown acute dermal toxicity. 95.11% of the mixture consists of component(s) of unknown acute inhalation toxicity.

NOTE: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The container label may not include the OSHA label elements listed in this document. Always carefully review the entire SDS and the product label prior to use in the workplace.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), Hydrotreated Light		64742-47-8	70 - < 80
1,6,10-dodecatriene, 7,11-dimethyl-3-methylene-, (6e)-, Hydrogenated		1581740-29-5	5 - < 10
Carbon Dioxide		124-38-9	1 - < 3
Other components below reportable levels			10 - < 20

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Powder. Dry chemicals. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame. Combustible.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	PEL	9000 mg/m ³

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)	PEL	5000 ppm 400 mg/m ³
		100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m ³
		30000 ppm
	TWA	9000 mg/m ³ 5000 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. Chemical respirator with organic vapor cartridge and full facepiece if threshold limits are exceeded. Dust & vapor respirator.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	Liquid Opaque
Physical state	Liquid.
Form	Aerosol.
Color	Yellow
Odor	Fragrance
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	469.04 °F (242.8 °C) estimated
Flash point	200.0 °F (93.3 °C) Tag Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	0.7 % estimated
Flammability limit - upper (%)	8.5 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0.51 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	530.6 °F (277 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	7.26 lbs/gal
Explosive properties	Not explosive.
Flame extension	> 18 in
Flammability (flash back)	No
Flammability class	Combustible IIIB estimated
Heat of combustion (NFPA 30B)	36.35 kJ/g
Oxidizing properties	Not oxidizing.
Percent volatile	0.29 % estimated
Specific gravity	0.87
VOC	0 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.
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Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species		Test Results
Distillates (petroleum), Hydrotreated Light (CAS 64742-47-8)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	2.7 - 5.1 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	2.9 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

1,6,10-dodecatriene, 7,11-dimethyl-3-methylene-, (6e)-, Hydrogenated 6.08 - 6.48 OECD 117, Log Kow

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

DOT

UN number	Not available.
UN proper shipping name	Consumer Commodity
Transport hazard class(es)	
Class	ORM-D
Subsidiary risk	-
Packing group	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not available.
Environmental hazards	Yes
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

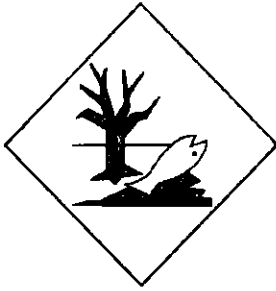
IMDG

UN number	UN1950
UN proper shipping name	Aerosols, flammable, MARINE POLLUTANT
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not available.
Environmental hazards	
Marine pollutant	Yes
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

IATA; IMDG



Marine pollutant



General information IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	04-27-2015
Revision date	10-04-2017
Version #	09
HMIS® ratings	Health: 2 Flammability: 1 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 1 Instability: 0

NFPA ratings



Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Issue Date 18-Dec-2012

Revision Date 21-Dec-2012

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Hand Sanitizer

Other Means of Identification

SDS # PCP-028

UN/ID No

UN1170

Product Code

06096/Bonus Hand Sanitizer/10048155906096
08465/2-PK Hand Sanitizer/10048155908465
08588/Hand Sanitizer/10048155908588
21273/Hand Sanitizer Mini Pack 4 PK/10048155921273
21761/Hand Sanitizer with Clip/10048155921761
21815/Hand Sanitizer W/ Aloe/10048155921815
21990/Hand Sanitizer Display Reg & Aloe/10048155921990
20580/PC Hand Sanitizer Lotion 8oz/10048155920580
-2/Hand Sanitizer with Clip 1.8 oz/1004815592392-2
/Hand Sanitizer with Clip/48155-92176
/Hand Sanitizer with Clip/48155-92392

Recommended Use of the Chemical and Restrictions on Use

Recommended Use Hand Sanitizer.

Details of the Supplier of the Safety Data Sheet

Supplier Address

Personal Care Products LLC
3001 West Big Beaver Rd. Ste. 520
Troy, MI 48084
248.971.7600
<http://www.personal-care.com>

Emergency Telephone Number

Company Phone Number 248-971-7600
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Flammable liquids

Category 3

Signal Word

Warning

Hazard Statements

Flammable liquid and vapor

**Appearance** Clear liquid**Physical State** Liquid**Odor** Alcohol**Precautionary Statements - Prevention**

Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Toxic to aquatic life with long lasting effects
 Toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Ethyl alcohol	64-17-5	65-70
Propylene Glycol	57-55-6	0-1
Glycerol	56-81-5	0-1
Triethanolamine Phosphate	10017-56-8	0-1
Aloe barbadensis leaf extract	94349-62-9	0-1

Formula contains 0.2% of a Fragrance not listed above.

4. FIRST AID MEASURES

First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Non-toxic in contact with skin.
Inhalation	Remove to fresh air.
Ingestion	Immediate medical attention is required.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms	May cause eye irritation. May cause respiratory irritation. May cause nose and throat irritation, with possible central nervous system effects.
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Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Foam, Dry Chemical, Carbon Dioxide. Water spray (fog).

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products Releases CO and CO₂ on thermal decomposition.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures**

Personal Precautions Remove all sources of ignition. Wear appropriate protective clothing and equipment to prevent contact.

Methods and Material for Containment and Cleaning Up

Methods for Containment Remove all sources of ignition. Collect using an inert absorbent material and place in appropriate containers for disposal.

Methods for Cleaning Up Keep in suitable, closed containers for disposal. Dispose of contents/container to an approved waste disposal plant.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Advice on Safe Handling Avoid eye contact. Avoid breathing vapors or mists. Wear appropriate personal protective equipment. Use non-sparking hand tools and explosion-proof electrical equipment. Take precautionary measures against static discharges. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. All equipment used when handling the product must be grounded.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Protect from sunlight. Store in a well-ventilated place.

Incompatible Materials Acids. platinum and silver. Hydrogen peroxide. Oxidizers. Chlorine bleach.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl alcohol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Glycerol 56-81-5	TWA: 10 mg/m ³ mist	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction (vacated) TWA: 10 mg/m ³ mist, total particulate (vacated) TWA: 5 mg/m ³ mist, respirable fraction	-

Appropriate Engineering Controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Avoid contact with eyes.

Skin and Body Protection No special technical protective measures are necessary.

Respiratory Protection Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Liquid	Odor	Alcohol
Appearance	Clear liquid	Odor Threshold	100 ppm
Color	Clear		

Property The following physical data are approximate only and do not represent specification values. They should be used only in the context of this safety data sheet. **Remarks • Method**

pH	Not applicable	
Melting Point/Freezing Point	-114.1 °C / -137.38 °F	
Boiling Point/Boiling Range	78.5 °C / 173.3 °F	
Flash Point	23 °C / 73 °F	
Evaporation Rate	< 1	(Water = 1)
Flammability (Solid, Gas)	Not applicable	
Upper Flammability Limits	18%	
Lower Flammability Limit	3.5%	
Vapor Pressure	40 mm/Hg	
Vapor Density	1.6	(Air=1)
Relative Density (Specific Gravity)	~0.889	(1=Water)
Water Solubility	Miscible in water	
Solubility in Other Solvents	Complete	
Partition Coefficient	2 – 7 as log Pow	
Autoignition Temperature	250 °C / 480 °F	

Decomposition Temperature	Will evaporate or boil and possibly ignite before decomposition occurs
Kinematic Viscosity	Not applicable
Dynamic Viscosity	Not applicable
Explosive Properties	Not an explosive
Oxidizing Properties	Not an oxidizer

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children. Incompatible Materials. Excessive heat and fire.

Incompatible Materials

Acids. platinum and silver. Hydrogen peroxide. Oxidizers. Chlorine bleach.

Hazardous Decomposition Products

If heated to decomposition, CO and CO₂ may be produced.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	No known hazard in contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl alcohol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Glycerol 56-81-5	= 12600 mg/kg (Rat)	> 21900 mg/kg (Rat)	-
Propylene Glycol 57-55-6	= 20000 mg/kg (Rat)	= 20800 mg/kg (Rabbit)	-
Carbomer 9003-01-4	= 2500 mg/kg (Rat)	-	-

Information on Physical, Chemical and Toxicological Effects**Symptoms**

May cause eye irritation. Prolonged exposure in poorly ventilated area may cause respiratory irritation. May cause nose and throat irritation, with possible central nervous system effects.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethyl alcohol 64-17-5	A3	Group 1	Known	X

*IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"*

Numerical Measures of Toxicity

Not determined

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethyl alcohol 64-17-5		12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static
Glycerol 56-81-5		51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static		500: 24 h Daphnia magna mg/L EC50
Propylene Glycol 57-55-6	19000: 96 h Pseudokirchneriella subcapitata mg/L EC50	51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50		10000: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50 Static
Carbomer 9003-01-4		580: 96 h Lepomis macrochirus mg/L LC50		168: 96 h water flea mg/L EC50

Persistence and Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Chemical Name	Partition Coefficient
Ethyl alcohol 64-17-5	-0.32
Glycerol 56-81-5	-1.76

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	California Hazardous Waste Status
Ethyl alcohol 64-17-5	Toxic Ignitable

14. TRANSPORT INFORMATION

Note Based on package size, product may be eligible for limited quantity exception.

DOT

UN/ID No	UN1170
Proper Shipping Name	Ethanol solution
Hazard Class	3
Packing Group	III

IATA

UN/ID No	UN1170
Proper Shipping Name	Ethanol solution
Hazard Class	3
Packing Group	III

IMDG

UN/ID No	UN1170
Proper Shipping Name	Ethanol solution
Hazard Class	3
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Not determined

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Ethyl alcohol - 64-17-5	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethyl alcohol 64-17-5	X	X	X
Glycerol 56-81-5	X	X	X
Propylene Glycol 57-55-6	X		X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	2	3	0	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	4	0	Not determined

Issue Date 18-Dec-2012
 Revision Date 21-Dec-2012
 Revision Note New format

Disclaimer

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End of Safety Data Sheet



SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date February 4, 2019

Revision Number 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Original Pine-Sol® Multi-Surface Cleaner

Other means of identification

EPA Registration Number 5813-101

Recommended use of the chemical and restrictions on use

Recommended Use General purpose household cleaner and disinfectant

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers

For Medical Emergencies call: 1-800-446-1014

For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This mixture is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

Emergency Overview

This product contains no substances which at their given concentration are considered to be hazardous to health.

Appearance Clear, amber	Physical State Slightly viscous liquid	Odor Pine
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Precautionary Statements - Prevention

None

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

6.8% of the mixture consists of ingredient(s) of unknown toxicity

Other information

May cause slight skin and eye irritation.

Interactions with Other Chemicals

May react with bleach-containing products or other household cleaners to produce hazardous gases.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Alkyl alcohol alkoxyate	166736-08-9	3 - 7	*
Glycolic acid	79-14-1	1 - 5	*

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Eye Contact

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.

Skin Contact

Rinse skin with plenty of soap and water.

Inhalation	Move to fresh air. If breathing is affected, call a doctor.
Ingestion	Call a poison control center or doctor for treatment advice. Have person sip a glassful of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor.

Most important symptoms and effects, both acute and delayed**Most Important Symptoms/Effects** Mild irritation of eyes and skin.**Indication of any immediate medical attention and special treatment needed****Notes to Physician** Treat symptomatically.**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

No information available

Explosion Data**Sensitivity to Mechanical Impact** None**Sensitivity to Static Discharge** None**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions** Avoid contact with eyes and skin.**Other Information** Refer to protective measures listed in Sections 7 and 8.**Environmental precautions****Environmental Precautions** See Section 12 for additional ecological information**Methods and material for containment and cleaning up****Methods for Containment** Prevent further leakage or spillage if safe to do so.**Methods for Cleaning Up** Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place.

Incompatible Products Products containing bleach and other household cleaners.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product contains no exposure guidelines.

Appropriate engineering controls

Engineering Measures None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/Face Protection If splashes are likely to occur, wear safety glasses with side-shields. None required for consumer use.

Skin and Body Protection No special protective equipment required.

Respiratory Protection If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes, or clothing. Do not eat, drink, or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Physical and Chemical Properties

Physical State	Slightly viscous liquid	Odor	Pine
Appearance	Clear	Odor Threshold	No information available
Color	Amber		

Property	Values	Remarks/ Method
pH	2.1 – 2.6	None known
Melting/freezing point	No data available	None known
Boiling Point/Range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.0	None known
Water Solubility	Soluble in water.	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	~15 cP	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity

May react with bleach-containing products or other household cleaners to produce hazardous gases.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known.

Incompatible materials

Products containing bleach and other household cleaners.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	Exposure to vapor or mist may irritate respiratory tract.
Eye Contact	May cause eye irritation.
Skin Contact	Prolonged contact may cause irritation.
Ingestion	Ingestion may cause irritation to mucous membranes and gastrointestinal irritation, nausea, vomiting, and diarrhea.

Component information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glycolic acid 79-14-1	-	-	7.7 mg/L (RaI, 4 h)

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes and skin redness.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	Contains no ingredient listed as a carcinogen.
Reproductive Toxicity	No information available
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	Carcinogenic potential is unknown.

Target Organ Effects Respiratory system, eyes, skin, gastrointestinal tract (GI).
Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document Not applicable.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

Chemical Inventories

TSCA All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

DSL/NDSL All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION: Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

None known.

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 0	Flammability 0	Instability 0	Physical and Chemical Hazards -
<u>HMIS</u>	Health Hazard 0	Flammability 0	Physical Hazard 0	Personal Protection A

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date January 5, 2015

Revision Date February 4, 2019

Reference 1092238/204495.001

General Disclaimer

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End of Safety Data Sheet

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



PLEDGE® FLOOR CARE MULTI-SURFACE FINISH

Version 1.1

Print Date 03/04/2015

Revision Date 02/25/2015

SDS Number 350000003597

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : PLEDGE® FLOOR CARE MULTI-SURFACE FINISH

Recommended use : Floor Polish/Cleaner

Manufacturer, Importer, supplier : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Telephone : +18005585252
Emergency telephone number : 24 Hour Medical Emergency Phone: (866)231-5406
24 Hour International Emergency Phone: (703)527-3887
24 Hour Transport Emergency Phone: (800)424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System (GHS) Classification

This product does not meet the criteria for classification in any hazard class according to regulation OSHA 29 CFR 1910.1200.

Labelling

Precautionary statements

Other hazards : None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Weight percent
Diethylene glycol monoethyl ether	111-90-0	1.00 - 5.00
2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene	52831-04-6	1.00 - 5.00
Tributyoxyethyl phosphate	78-51-3	1.00 - 5.00

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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Hydrogen Peroxide	7722-84-1	0.10 - 1.00
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The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

- Eye contact** : No special requirements
- Skin contact** : No special requirements
- Inhalation** : No special requirements.
- Ingestion** : No special requirements

5. FIREFIGHTING MEASURES

- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during firefighting** : Container may melt and leak in heat of fire.
- Further information** : Fight fire with normal precautions from a reasonable distance. Standard procedure for chemical fires. Wear full protective clothing and positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Wash thoroughly after handling.
- Environmental precautions** : Outside of normal use, avoid release to the environment.
- Methods and materials for containment and cleaning up** : Dike large spills.
Clean residue from spill site.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



PLEDGE® FLOOR CARE MULTI-SURFACE FINISH

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Revision Date 02/25/2015

SDS Number 350000003597

7. HANDLING AND STORAGE

Handling

Precautions for safe handling : Avoid contact with skin, eyes and clothing.
For personal protection see section 8.
KEEP OUT OF REACH OF CHILDREN AND PETS.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

Requirements for storage areas and containers : Keep container closed when not in use.
Other data : Stable under normal conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Components	CAS-No.	mg/m3	ppm	Non-standard units	Basis
Hydrogen Peroxide	7722-84-1	1.4 mg/m3	1 ppm	-	OSHA TWA
Hydrogen Peroxide	7722-84-1	-	1 ppm	-	ACGIH TWA

Personal protective equipment

Respiratory protection : No special requirements.
Hand protection : No special requirements.
Eye protection : No special requirements.
Skin and body protection : No special requirements.
Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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Version 1.1

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Revision Date 02/25/2015

SDS Number 350000003597

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Color	: clear transparent
Odor	: pleasant
Odour Threshold	: No data available
pH	: 8.7
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: > 93 °C
Flash point	: does not flash
Evaporation rate	: No data available
Flammability (solid, gas)	: The product is not flammable.
Upper/lower flammability or explosive limits	: No data available
Vapour pressure	: No data available
Vapour density	: No data available
Relative density	: 1.026 g/cm ³
Solubility(ies)	: No data available

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



PLEDGE® FLOOR CARE MULTI-SURFACE FINISH

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Partition coefficient: n-octanol/water	:	No data available	:
Auto-ignition temperature	:	No data available	:
Decomposition temperature	:	No data available	:
Viscosity, dynamic	:	No data available	:
Viscosity, kinematic	:	No data available	:
Oxidizing properties	:	No data available	:
Volatile Organic Compounds Total VOC (wt. %)*	:	0.3 % - additional exemptions may apply *as defined by US Federal and State Consumer Product Regulations	:
Other information	:	None identified	:

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	If accidental mixing occurs and toxic gas is formed, exit area immediately. Do not return until well ventilated.
Conditions to avoid	:	Direct sources of heat.
Incompatible materials	:	Do not mix with bleach or any other household cleaners. Strong bases
Hazardous decomposition	:	Thermal decomposition can lead to release of irritating gases

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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products and vapours.

11. TOXICOLOGICAL INFORMATION

- Emergency Overview** : This product does not meet the criteria for classification in any hazard class according to regulation OSHA 29 CFR 1910.1200.
- Acute oral toxicity** : LD50 estimated > 5,000 mg/kg
- Acute inhalation toxicity** : No data available
- Acute dermal toxicity** : LD50 estimated > 2,000 mg/kg

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	-
Skin corrosion/irritation	No classification proposed	-
Serious eye damage/eye irritation	No classification proposed	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ toxicity - single exposure	No classification proposed	-
Specific target organ toxicity - repeated	No classification proposed	-

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



PLEDGE® FLOOR CARE MULTI-SURFACE FINISH

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Print Date 03/04/2015

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exposure		
Aspiration hazard	No classification proposed	-

Aggravated Medical Condition : None known.

12. ECOLOGICAL INFORMATION

Product : The product itself has not been tested.

Toxicity

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

Toxicity to fish

Components	End point	Species	Value	Exposure time
Diethylene glycol monoethyl ether	flow-through test LC50	Ictalurus punctatus	6,010 mg/l	96 h
2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene	No data available			
Tributyoxylethyl phosphate	semi-static test LC50 Measured	Oncorhynchus mykiss (rainbow trout)	24 mg/l	96 h
Hydrogen Peroxide	LC50	Pimephales promelas (fathead minnow)	16.4 mg/l	96 h

Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure
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Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200

**PLEDGE® FLOOR CARE MULTI-SURFACE FINISH**

Version 1.1

Print Date 03/04/2015

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				time
Diethylene glycol monoethyl ether	static test EC50	Daphnia magna (Water flea)	1,982 mg/l	48 h
2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene	No data available			
Tributyoxyethyl phosphate	static test EC50 Measured	Daphnia magna (Water flea)	53 mg/l	48 h
Hydrogen Peroxide	semi-static test LC50	Daphnia pulex (Water flea)	2.4 mg/l	48 h

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
Diethylene glycol monoethyl ether	static test EC50 Read-across (Analogy)	Desmodesmus subspicatus (green algae)	> 100 mg/l	96 h
2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene	No data available			
Tributyoxyethyl phosphate	static test EC50	Pseudokirchneriella subcapitata (green algae)	61 mg/l	72 h
Hydrogen Peroxide	static test EC50	Skeletonema costatum	1.38 mg/l	72 h

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200

**PLEDGE® FLOOR CARE MULTI-SURFACE FINISH**

Version 1.1

Print Date 03/04/2015

Revision Date 02/25/2015

SDS Number 350000003597

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
Diethylene glycol monoethyl ether	100 %	28 d	Readily biodegradable
2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene	No data available		
Tributyoxyethyl phosphate	87 %	28 d	Readily biodegradable
Hydrogen Peroxide	> 99 %	30 min	Readily biodegradable

Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)
Diethylene glycol monoethyl ether	3,162	0.54
2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene	No data available	No data available
Tributyoxyethyl phosphate	5.8 Measured	3.75 Measured
Hydrogen Peroxide	No data available	-1.57

Mobility

Component	End point	Value
Diethylene glycol monoethyl ether	No data available	
2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene	No data available	
Tributyoxyethyl phosphate	log Koc	2.5
Hydrogen Peroxide	No data available	

PBT and vPvB assessment

Component	Results
Diethylene glycol monoethyl	Not fulfilling PBT and vPvB criteria

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



PLEDGE® FLOOR CARE MULTI-SURFACE FINISH

Version 1.1

Print Date 03/04/2015

Revision Date 02/25/2015

SDS Number 350000003597

ether	
Tributyoxethyl phosphate	Not fulfilling PBT and vPvB criteria

Other adverse effects : None known.

13. DISPOSAL CONSIDERATIONS

Consumer may discard empty container in trash, or recycle where facilities exist.

14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

Land transport

Not classified as dangerous in the meaning of transport regulations.

Sea transport

Not classified as dangerous in the meaning of transport regulations.

Air transport

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

Notification status : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Notification status : All ingredients of this product comply with the New Substances Notification requirements under the Canadian Environmental Protection Act (CEPA).

California Prop. 65 : This product is not subject to the reporting requirements under California's Proposition 65.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



PLEDGE® FLOOR CARE MULTI-SURFACE FINISH

Version 1.1

Print Date 03/04/2015

Revision Date 02/25/2015

SDS Number 350000003597

16. OTHER INFORMATION

HMIS Ratings

Health	1
Flammability	0
Reactivity	0

NFPA Ratings

Health	1
Fire	0
Reactivity	0
Special	-

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

Further information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment & Regulatory Affairs (GSARA)
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Material Safety Data Sheet

according to ANSI Z400.1- 2004 and 29 CFR 1910.1200



PLEDGE® COMMERCIAL LINE CLEAN & SHINE FURNITURE POLISH - ORANGE

Version 2.1

Print Date 03/04/2011

Revision Date 06/22/2010

MSDS Number 350000003605
350000015444
SITE_FORM Number
30000000000000002945.001

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Trade name : PLEDGE® COMMERCIAL LINE CLEAN & SHINE FURNITURE POLISH - ORANGE

Use of the Substance/Mixture : Furniture Polish/Cleaner

Company : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Emergency telephone : 24 Hour Transport & Medical Emergency Phone (866) 231-5406
24 Hour International Emergency Phone (952) 852-4647

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance / Odor : opaque / aerosol / pleasant

Immediate Concerns

: Caution
Contents under pressure. Do not puncture or incinerate. Keep away from heat, sparks and flame. Do not store at temperatures above 120 Deg. F (50 Deg C), as container may burst.

Potential Health Effects

Exposure routes : Eye, Skin, Inhalation, Ingestion.

Eyes : May cause:
Mild eye irritation

Skin : No adverse effects expected when used as directed.

Inhalation : No adverse effects expected when used as directed.

Ingestion : Aspiration hazard if swallowed - can enter lungs and cause damage.

Aggravated Medical Condition : None known.

Material Safety Data Sheet

according to ANSI Z400.1- 2004 and 29 CFR 1910.1200



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30000000000000002945.001

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous chemicals present at or above reportable levels as defined by OSHA 29 CFR 1910.1200 or the Canadian Controlled Products Regulations are listed in this table:

Chemical Name	CAS-No.	Weight percent
Naphtha, petroleum, light alkylate	64741-66-8	5.00 - 10.00
Butane	106-97-8	1.00 - 5.00
Propane	74-98-6	1.00 - 5.00
Isobutane	75-28-5	1.00 - 5.00

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

- Eye contact : Rinse with plenty of water. Get medical attention if irritation develops and persists.
- Skin contact : Wash off with soap and water. Get medical attention if irritation develops and persists.
- Inhalation : Remove to fresh air. If breathing is affected, get medical attention.
- Ingestion : If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician or Poison Control Centre immediately.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol foam, carbon dioxide, dry chemical, water fog
- Specific hazards during fire fighting : Aerosol Product - Containers may rocket or explode in heat of fire.
- Further information : Cool and use caution when approaching or handling fire-exposed containers. Fight fire from maximum distance or protected area. Wear full protective clothing and positive pressure self-contained breathing apparatus.

Material Safety Data Sheet

according to ANSI Z400.1- 2004 and 29 CFR 1910.1200



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- Flash point : < 7.0 °C
Method: Tag Closed Cup (TCC)
Note: Propellant
- Flash point : < 20 °F
Method: Tag Closed Cup (TCC)
Note: Propellant
- Lower explosion limit : Note: no data available
- Upper explosion limit : Note: no data available
- NFPA Classification : NFPA Level 1 Aerosol

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Remove all sources of ignition.
- Methods for cleaning up : Soak up with inert absorbent material.
Sweep up and shovel into suitable containers for disposal.
After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Use only as directed.
KEEP OUT OF REACH OF CHILDREN AND PETS.
Do not puncture or incinerate.
Do not spray or use on floors as it could leave them slippery.

- Advice on protection against fire and explosion : Keep away from heat and sources of ignition.

Storage

- Requirements for storage areas and containers : Keep in a dry, cool and well-ventilated place.
Do not freeze.
Do not store at temperatures above 120 Deg. F (50 Deg C), as container may burst.

Material Safety Data Sheet

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30000000000000002945.001**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Occupational Exposure Limits**

Components	CAS-No.	mg/m3	ppm	Non-standard units	Basis
Butane	106-97-8	-	1,000 ppm	-	ACGIH TWA
Propane	74-98-6	1,800 mg/m3	1,000 ppm	-	OSHA TWA
Propane	74-98-6	-	1,000 ppm	-	ACGIH TWA
Isobutane	75-28-5	-	1,000 ppm	-	ACGIH TWA

Personal protective equipment**Respiratory protection**

Industrial setting : No personal respiratory protective equipment normally required.

Household setting : No personal respiratory protective equipment normally required.

Hand protection

Industrial setting : not required under normal use

Household setting : not required under normal use

Eye protection

Industrial setting : No special requirements.

Household setting : No special requirements.

Hygiene measures

: Use only with adequate ventilation. Wash thoroughly after handling.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	aerosol
Color	:	opaque
Odor	:	pleasant
pH	:	not applicable
Melting point	:	no data available
Boiling point	:	no data available
Freezing point	:	no data available
Flash point	:	< 7.0 °C Method: Tag Closed Cup (TCC) Propellant
Flash point	:	< 20 °F Method: Tag Closed Cup (TCC) Propellant
Evaporation rate	:	no data available
Autoignition temperature	:	no data available
Lower explosion limit	:	no data available
Upper explosion limit	:	no data available
Vapour pressure	:	no data available
Density	:	0.9 - 1.0 g/cm ³
Water solubility	:	slightly soluble
Partition coefficient: n- octanol/water	:	no data available
Volatile Organic Compounds (California Air Resource Board – CARB) Total VOC (wt. %)	:	16.9 % - does not include any applicable regulatory exemptions

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10. STABILITY AND REACTIVITY

- Conditions to avoid : Heat, flames and sparks.
- Materials to avoid : Do not mix with oxidizing agents.
- Hazardous decomposition products : When exposed to fire, produces normal products of combustion.
- Hazardous reactions : Stable

11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity : LD50
estimated
> 20,000 mg/kg
- Acute inhalation toxicity : LC50
estimated
> 212 mg/l
- Acute dermal toxicity : no data available
- Chronic effects**
- Carcinogenicity : no data available
- Mutagenicity : no data available
- Reproductive effects : no data available
- Teratogenicity : no data available
- Sensitisation : no data available

12. ECOLOGICAL INFORMATION

- Ecotoxicity effects** : no data available

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13. DISPOSAL CONSIDERATIONS

- | | | |
|----------------------|---|---|
| Industrial setting | : | Observe all applicable Federal, Provincial and State regulations and Local/Municipal ordinances regarding disposal. |
| Household setting | : | Consumer may discard empty container in trash, or recycle where facilities exist. |
| RCRA waste class | : | D001 (Ignitable Waste) |
| SCJ product category | : | AF: Aerosol Flammable |

14. TRANSPORT INFORMATION

Land transport

- U.S. DOT and Canadian TDG Surface Transportation:

UN-Number	1950
Proper shipping name	Aerosols, flammable
Class:	2.1
Packaging group:	None.

Note: SC Johnson ships this product as Consumer Commodity ORM-D (non-bulk packages)

Sea transport

- IMDG:

Class:	2.1
Packaging group:	None.
Proper shipping name	Aerosols, flammable
UN-Number:	1950

Note: SC Johnson ships this product as "Limited Quantity" when the container quantity value is 1 Liter or less.

Air transport

- ICAO/IATA:

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Class: 2.1
Packaging group: None.
Proper shipping name: Aerosols, flammable
UN/ID No.: UN 1950

Note: SC Johnson typically does not ship products via air, therefore it has not been determined if the product container meets current IATA/ICAO package criteria. Refer to IATA/ICAO Dangerous Goods Regulations for detailed instructions when shipping this item by air.

15. REGULATORY INFORMATION

- Notification status : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
- Notification status : All ingredients of this product comply with the New Substances Notification requirements under the Canadian Environmental Protection Act (CEPA).
- California Prop. 65 : This product is not subject to the reporting requirements under California's Proposition 65.
- Canada Regulations : This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

16. OTHER INFORMATION

HMIS Ratings

Health	0
Flammability	4
Reactivity	0

NFPA Ratings

Health	0
Fire	4
Reactivity	0
Special	

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Further information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by:	SC Johnson Global Safety Assessment & Regulatory Affairs (GSARA)
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Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



PLEDGE® ORANGE POLISH

Version 1.4

Print Date 11/29/2017

Revision Date 10/23/2017

SDS Number 350000032827

GEN_SOF Number 60196

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : PLEDGE® ORANGE POLISH

Recommended use : Furniture Polish/Cleaner

Restrictions on use : Use only as directed on label

Manufacturer, Importer, supplier : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Telephone : +1-800-558-5252

Emergency telephone number : 24 Hour Medical Emergency Phone: (866)231-5406
24 Hour International Emergency Phone: (703)527-3887
24 Hour Transport Emergency Phone: (800)424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System (GHS) Classification

Hazard classification	Hazard category	Hazards identification
Gases under pressure	Compressed gas	Contains gas under pressure; may explode if heated.

Labelling

Hazard symbols

Gas cylinder

Signal word

Warning

Hazard statements

Contains gas under pressure; may explode if heated.

Precautionary statements

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Protect from sunlight. Store in a well-ventilated place.

Other hazards : None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No.	Weight percent
Hydrocarbons, C7-C9, isoalkanes	64741-66-8	10.00 - 30.00

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

Description of first aid measures

Eye contact : No special requirements

Skin contact : No special requirements

Inhalation : No special requirements.

Ingestion : No special requirements

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and special treatment needed

See Description of first aid measures unless otherwise stated.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards during : Aerosol Product - Containers may rocket or explode in heat of

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firefighting

fire.

Further information

: Fight fire from maximum distance or protected area. Although this product has a flash point below 200 Deg F, it is an aqueous solution containing an alcohol and does not sustain combustion. Cool and use caution when approaching or handling fire-exposed containers. Fight fire with normal precautions from a reasonable distance. Standard procedure for chemical fires. Wear full protective clothing and positive pressure self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

: Remove all sources of ignition.
Wash thoroughly after handling.

Environmental precautions

: Outside of normal use, avoid release to the environment.

Methods and materials for containment and cleaning up

: Sweep up and shovel into suitable containers for disposal.
Clean residue from spill site.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling

: Avoid contact with skin, eyes and clothing.
For personal protection see section 8.
KEEP OUT OF REACH OF CHILDREN AND PETS.

Advice on protection against fire and explosion

: Normal measures for preventive fire protection.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

ACGIH or OSHA exposure limits have not been established for this product or reportable ingredients unless noted in the table above.

Personal protective equipment

Respiratory protection : No special requirements.

Hand protection : No special requirements.

Eye protection : No special requirements.

Skin and body protection : No special requirements.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : aerosol

Color : white

Odour : Citrus

Odour Threshold : Test not applicable for this product type

pH : 7
at (20 °C)
(not an aqueous solution)

Melting point/freezing point : Test not applicable for this product type

Initial boiling point and boiling range : 100 °C

Flash point : -1 °C

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30.2 °F
Method: Tag Closed Cup (TCC)
liquid

- Evaporation rate** : Test not applicable for this product type

- Flammability (solid, gas)** : Does not sustain combustion.

- Upper/lower flammability or explosive limits** : Test not applicable for this product type

- Vapour pressure** : Test not applicable for this product type

- Vapour density** : Test not applicable for this product type

- Relative density** : 0.95 g/cm³ at 20 °C

- Solubility(ies)** : immiscible

- Partition coefficient: n-octanol/water** : Test not applicable for this product type

- Auto-ignition temperature** : The substance or mixture is not classified as self heating.

- Decomposition temperature** :

- Viscosity, dynamic** : Test not applicable for this product type

- Viscosity, kinematic** : Test not applicable for this product type

- Oxidizing properties** : Test not applicable for this product type

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Volatile Organic Compounds : 11.1 % - additional exemptions may apply
Total VOC (wt. %)* *as defined by US Federal and State Consumer Product Regulations

Other information : None identified :

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions : Stable under recommended storage conditions.

Conditions to avoid : Direct sources of heat.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : Thermal decomposition can lead to release of irritating gases and vapours.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 > 5000 mg/kg
Acute inhalation toxicity : LC50 > 10 mg/L

Acute dermal toxicity : LD50 > 5000 mg/kg

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	Oral
Acute toxicity	No classification proposed	Dermal
Acute toxicity	No classification proposed	Inhalation - Dust and Mist
Acute toxicity	No classification proposed	Inhalation - Vapour
Acute toxicity	No classification proposed	Inhalation - Gas

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Skin corrosion/irritation	No classification proposed	-
Serious eye damage/eye irritation	No classification proposed	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ toxicity - single exposure	No classification proposed	-
Specific target organ toxicity - repeated exposure	No classification proposed	-
Aspiration hazard	No classification proposed	-

Aggravated Medical Condition : None known.

12. ECOLOGICAL INFORMATION

Product : The product itself has not been tested.

Toxicity

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

Toxicity to fish

Components	End point	Species	Value	Exposure time
Hydrocarbons, C7-C9, isoalkanes	No data available			

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Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
Hydrocarbons, C7-C9, isoalkanes	EC50	Daphnia magna (Water flea)	2.4 mg/l	48 h

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure time
Hydrocarbons, C7-C9, isoalkanes	EC50	Pseudokirchneriella subcapitata	29 mg/l	96 h

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
Hydrocarbons, C7-C9, isoalkanes	22 %	28 d	Not readily biodegradable.

Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)
Hydrocarbons, C7-C9, isoalkanes	No data available	No data available

Mobility

Component	End point	Value
Hydrocarbons, C7-C9, isoalkanes	log Koc	> 1.783 - < 2.36

PBT and vPvB assessment

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Component	Results
Hydrocarbons, C7-C9, isoalkanes	Not fulfilling PBT and vPvB criteria

Other adverse effects : None known.

13. DISPOSAL CONSIDERATIONS

Consumer may discard empty container in trash, or recycle where facilities exist.

14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

	Land transport	Sea transport	Air transport
UN number	1950	1950	1950
UN proper shipping name	UN 1950 AEROSOLS, non-flammable, 2.2	UN 1950 AEROSOLS, non-flammable, 2.2	UN 1950 AEROSOLS, non-flammable, 2.2
Transport hazard class(es)	2.2	2	2.2
Packing group	-	-	-
Environmental hazards	-	-	-
Special precautions for user	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.	Limited quantities derogation may be applicable to this product, please check transport documents.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Product not transported as bulk.	Product not transported as bulk.	Product not transported as bulk.

15. REGULATORY INFORMATION

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Notification status : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Notification status : All ingredients of this product comply with the New Substances Notification requirements under the Canadian Environmental Protection Act (CEPA).

California Prop. 65 : This product is not subject to the reporting requirements under California's Proposition 65.

16. OTHER INFORMATION

HMIS Ratings

Health	0
Flammability	2
Reactivity	0

NFPA Ratings

Health	0
Fire	3
Reactivity	0
Special	-

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

Further information

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This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment & Regulatory Affairs (GSARA)
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Safety Data Sheet Portland Cement

Section 1. Identification

GHS product identifier:	Portland Cement
Chemical name:	Calcium compounds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up the majority of this product.
Other means of identification:	Cement, ASTM Type I, II, III, V, Portland Limestone Cement, Plastic Cement, Hydraulic Cement, Oilwell Cement, Well Cement, Class G Cement, InterCem, EcoCemPLC, Type II, CSA Type GU, GUB, GUL, MS, MH, MHL, HE, HEL, LH, LHL, HS
Relevant identified uses of the substance or mixture and uses advised against:	Building materials, construction, a basic ingredient in concrete.
Supplier's details:	300 E. John Carpenter Freeway, Suite 1645 Irving, TX 75062 (972) 653-5500
Emergency telephone number (24 hours):	CHEMTREC: (800) 424-9300

Section 2. Hazards Identification

Overexposure to portland cement can cause serious, potentially irreversible skin or eye damage in the form of chemical (caustic) burns, including third degree burns. The same serious injury can occur if wet or moist skin has prolonged contact exposure to dry portland cement.

OSHA/HCS status:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture:	SKIN SENSITIZATION – Category 1; H314 CARCINOGENICITY – Category 1A; H350 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) – Category 2; H335 SKIN CORROSION/IRRITATION – Category 1C; H314 SERIOUS EYE DAMAGE/EYE IRRITATION – Category 1; H318

GHS label elements

Hazard pictograms:



Signal word:	Danger
Hazard statements:	Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May cause cancer.

Precautionary statements:

Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Use outdoors in a well ventilated area. Wash any exposed body parts thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated clothing must not be allowed out of the workplace.
Response:	If exposed or concerned: Immediately get medical advice/attention if you feel unwell or irritation or rash occurs. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. If inhaled: Remove person to fresh air and keep comfortable for breathing. If swallowed: Rinse mouth. Do not induce vomiting.
Storage:	Restrict or control access to stockpile areas (store locked up). Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bulk truck or other storage container or vessel that stores or contains cement without an effective procedure for assuring safety. Store in a well ventilated area. Keep container tightly closed.
Disposal:	Dispose of contents/container in accordance with local/regional/national/international

Hazards not otherwise classified (HNOC): regulations.
None known

Supplemental Information: Respirable Crystalline Silica (RCS) may cause cancer. Repeated inhalation of respirable crystalline silica (quartz) may cause lung cancer according to IARC and NTP; ACGIH states that it is a suspected cause of cancer. Other forms of RCS (e.g., tridymite and cristobalite) may also be present or formed under certain industrial processes.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Chemical Name: Calcium compounds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up the majority of this product.

CAS number/other identifiers

Ingredient name	%	CAS number
Portland Cement	100%	65997-15-1
The structure of Portland cement may contain the following in some concentration ranges:		
Calcium oxide	0-5	1305-78-8
Quartz	0-0.1	14808-60-7
Gypsum	4-9	13397-24-5
Limestone	0-5	1317-65-3
Magnesium oxide	0-4	1309-48-4
Gypsum, limestone and magnesium oxide are not classifiable as a hazard under Title 29 Code of Federal Regulations 1910.1200.		
Hexavalent chromium*	Trace	18450-29-9

*Hexavalent chromium is included due to dermal sensitivity associated with the component.

Any concentration shown as a range is to protect confidentiality or is due to process variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye Contact: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.

Inhalation: Seek medical help if coughing or other symptoms persist. Inhalation of large amounts of portland cement requires immediate medical attention. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the individual is not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in a recovery position and get medical attention immediately. Maintain an open airway.

Skin Contact: Get medical attention immediately. Heavy exposure to portland cement dust, wet concrete or associated water requires prompt attention. Quickly remove contaminated clothing, shoes, and leather goods such as watchbands and belts. Quickly and gently blot or brush away excess portland cement. Immediately wash thoroughly with lukewarm, gently flowing water and non-abrasive pH natural soap. Seek medical attention for rashes, burns, irritation, dermatitis and prolonged unprotected exposure to wet cement, cement mixtures or liquids from wet cement. Burns should be treated as caustic burns. Portland cement causes skin burns with little warning. Discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain or the severity of the burn until hours after the exposure. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure.

Ingestion: Get medical attention immediately. Call a poison center or physician. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING unless directed to do so by medical personnel. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small

quantities of water to drink. Have victim drink 60 to 240 mL (2 to 8 oz.) of water. Stop giving water if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most important symptoms/effects, acute and delayed potential acute health effects

Eye contact:	Causes serious eye damage.
Inhalation:	May cause respiratory irritation.
Skin contact:	Causes severe burns. May cause an allergic skin reaction.
Ingestion:	May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact:	Adverse symptoms may include the following: pain, watering and redness.
Inhalation:	Adverse symptoms may include the following: respiratory tract irritation and coughing.
Skin contact:	Adverse symptoms may include the following: pain or irritation, redness and blistering may occur, skin burns, ulceration and necrosis may occur.
Ingestion:	Adverse symptoms may include the following: stomach pains.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments:	Not applicable.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media:	Do not use water jet or water-based fire extinguishers.
Specific hazards arising from the chemical:	No specific fire or explosion hazard.
Hazardous thermal decomposition Products:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides and metal oxide/oxides.
Special protective actions for fire-fighters:	Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders:	For personal protective clothing requirements, please see Section 8.
Environmental precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has entered the environment, including waterways, soil or air. Materials can enter waterways through drainage systems.

Methods and materials for containment and cleaning up

Small spill:	Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of waste material by using a licensed waste disposal contractor.
Large spill:	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place dust in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Large spills to waterways may be hazardous due to alkalinity of the product. Dispose of waste material using a licensed waste disposal contractor. Note: see section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures:	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure by obtaining and following special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material and keep the container tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities:	A key to using the product safely requires the user to recognize that portland cement reacts chemically with water to produce calcium hydroxide which can cause severe chemical burns. Every attempt should be made to avoid skin and eye contact with cement. Do not get portland cement inside boots, shoes or gloves. Do not allow wet, saturated clothing to remain against the skin. Promptly remove clothing and shoes that are dusty or wet with cement mixtures. Launder/clean clothing and shoes before reuse. Do not enter a confined space that stores or contains portland cement unless appropriate procedures and protection are available. Portland cement can build up or adhere to the walls of a confined space and then release or fall suddenly (engulfment).

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Particulates not otherwise classified (CAS SEQ250)	<p>ACGIH TLV (United States, Canada) TWA: 3 mg/m³. Form: Respirable particles TWA: 10 mg/m³. Form: Inhalable particles</p> <p>OSHA PEL (United States) PEL: 5 mg/m³. Form: Respirable fraction PEL: 15 mg/m³. Form: Total dust</p> <p>MSHA PEL (United States) PEL: 5 mg/m³. Form: Respirable fraction PEL: 10 mg/m³. Form: Total dust</p>
Portland Cement	<p>ACGIH TLV (United States and Canada) TWA: 1 mg/m³. Form: Respirable dust</p> <p>OSHA PEL (United States) PEL: 5 mg/m³. Form: Respirable fraction PEL: 15 mg/m³. Form: Total dust</p> <p>MSHA PEL (United States) PEL: 5 mg/m³. Form: Respirable fraction PEL: 10 mg/m³. Form: Total dust</p>
Calcium oxide	<p>ACGIH TLV (United States and Canada) TWA: 2 mg/m³ 8 hours</p> <p>OSHA/MSHA PEL (United States) TWA: 5 mg/m³ 8 hours.</p>
Limestone	<p>ACGIH TLV (United States, Canada) TWA: 3 mg/m³. Form: Respirable particles TWA: 10 mg/m³. Form: Inhalable particles</p> <p>OSHA PEL (United States) PEL: 5 mg/m³. Form: Respirable fraction PEL: 15 mg/m³. Form: Total dust</p> <p>MSHA PEL (United States) PEL: 5 mg/m³. Form: Respirable fraction PEL: 10 mg/m³. Form: Total dust</p>
Magnesium oxide	<p>ACGIH TLV (United States and Canada) TWA: 10 mg/m³ 8 hours. Form: Inhalable fraction</p> <p>OSHA PEL (United States) TWA: 15 mg/m³ 8 hours. Form: Total particulates</p>
Calcium sulfate (gypsum)	<p>ACGIH TLV (United States, Canada) TWA: 10 mg/m³ 8 hours. Form: Respirable fraction</p> <p>OSHA PEL Z-1 (United States) TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p>
Crystalline Silica (Quartz) (CAS 14808-60-7)	<p>ACGIH TLV (United States) TWA: 0.025 mg/m³. Form: Respirable fraction</p> <p>OSHA PEL (United States) TWA: 0.05 mg/m³. Form: Respirable</p> <p>MSHA PEL (United States) TWA: 10/(%SiO₂ + 2) in mg/m³</p> <p>Provincial Exposure Limits (Canada, various)</p> <ul style="list-style-type: none"> ▪ Alberta (OHS Code) 0.025 mg/m³ 8 hour TWA ▪ British Columbia (WorkSafeBC OHS Regulation) 0.025 mg/m³ 8 hour TWA ▪ British Columbia (Health, Safety & Reclamation Code, Mines Act) 0.1 mg/m³ 8 hour TWA ▪ Manitoba (Workplace Safety and Health Regulation) 0.025 mg/m³ 8 hour TWA ▪ New Brunswick 0.025 mg/m³ 8 hour TWA ▪ Newfoundland 0.025 mg/m³ 8 hour TWA ▪ Nova Scotia 0.025 mg/m³ 8 hour TWA ▪ Ontario (O. Reg 490/09; and O. Reg. 833) 0.1 mg/m³ 8 hour TWA ▪ Prince Edward Island

	<p>0.025 mg/m³ 8 hour TWA</p> <ul style="list-style-type: none"> ▪ Quebec (Regulation Respecting OHS, Chapter S-2.1, r. 13) 0.1 mg/m³ 8 hour TWA ▪ Saskatchewan (OHS Regulations) 0.05 mg/m³ 8 hour TWA
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Appropriate engineering controls:	Use only with adequate ventilation. If user operations generate dust, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
Exposure guidelines:	OSHA PELs, MSHA PELs, Canadian Provincial OELs, and ACGIH TLVs are 8-hr TWA values. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Terms including "Particulates Not Otherwise Classified," "Particulates Not Otherwise Regulated," "Particulates Not Otherwise Specified," and "Inert or Nuisance Due" are often used interchangeably; however, the user should review each agency's terminology for differences in meanings.

Individual protection measures

Hygiene measures:	Clean water should always be readily available for skin and (emergency) eye washing. Periodically wash areas contacted by portland cement with a pH neutral soap and clean, uncontaminated water. If clothing becomes saturated with portland cement, garments should be removed and replaced with clean, dry clothing.
Eye/face protection:	To prevent eye contact, wear safety glasses with side shields, safety goggles or face shields when handling dust or wet cement. Wearing contact lenses when working with cement is not recommended.

Skin protection

Hand protection:	Use impervious, waterproof, abrasion and alkali-resistant gloves. Do not rely on barrier creams in place of impervious gloves. Do not get portland cement inside gloves.
Body protection:	Use impervious, waterproof, abrasion and alkali-resistant boots and protective long-sleeved and long-legged clothing to protect the skin from contact with wet portland cement. To reduce foot and ankle exposure, wear impervious boots that are high enough to prevent portland cement from getting inside them. Do not get portland cement inside boots, shoes, or gloves. Remove clothing and protective equipment that becomes saturated with cement and immediately wash exposed areas of the body.
Other skin protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.
Respiratory protection:	Use properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and assigned protection factor of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical State:	Solid. [Powder]	Lower and Upper explosive flammable limits	Not applicable
Color:	Gray or white	Vapor pressure:	Not applicable
Odor:	Odorless	Vapor density:	Not applicable
Odor threshold:	Not available	Relative density:	2.3 to 3.1
pH:	>11.5 [Conc. (% w/w): 1%]	Solubility:	Slightly soluble in water
Melting point:	Not available	Solubility in water:	0.1 to 1%
Boiling point:	>1000°C (>1832°F)	Partition coefficient: n-octanol/water:	Not applicable
Flash point:	Not flammable. Not combustible	Auto-ignition temperature:	Not applicable
Burning time:	Not available	Decomposition temperature:	Not available
Burning rate:	Not available	SADT:	Not available
Evaporation Rate:	Not applicable	Viscosity:	Not applicable
Flammability (solid, gas):	Not applicable		

Section 10. Stability and reactivity

Reactivity:	Reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete.
Chemical Stability:	The product is stable.
Possibility of hazardous reactions:	Under normal circumstances of storage and use, hazardous reactions will not occur.
Conditions to avoid:	No specific data.
Incompatible materials:	Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt. Portland cement is highly alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas-silicon tetrafluoride.
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity:	Portland Cement LD50/LC50 = Not available
Irritation/Corrosion:	Skin: May cause skin irritation. May cause serious burns in the presence of moisture. Eyes: Causes serious eye damage. May cause burns in the presence of moisture. Respiratory: May cause respiratory tract irritation.
Sensitization:	May cause sensitization due to the potential presence of trace amounts of hexavalent chromium.
Mutagenicity:	There are no data available.
Carcinogenicity:	
Classification below:	

Product/ingredient name	OSHA	IARC	ACGIH	NTP
Cement, portland, chemicals	-	-	A4	-
Crystalline Silica (Quartz) (CAS 14808-60-7)	Listed	1	A2	Known to be a human carcinogen.

Reproductive toxicity:	There are no data available.
Teratogenicity:	There are no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of Exposure	Target Organs
Calcium oxide	Category 3	Inhalation and skin contact	Respiratory tract irritation, skin irritation
Cement, portland, chemicals	Category 3	Inhalation and skin contact	Respiratory tract irritation, skin irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of Exposure	Target Organs
Crystalline Silica (Quartz) (CAS 14808-60-7)	Category 1	Inhalation	Respiratory tract and kidneys

Aspiration hazard:	There are no data available.
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Information on the likely routes of exposure

Potential acute health effects:	<p>Eye contact: Causes serious eye damage. Inhalation: May cause respiratory irritation. Skin contact: Causes severe burns. May cause an allergic skin reaction. Ingestion: May cause burns to mouth, throat and stomach.</p>
Symptoms related to the physical, chemical and toxicological characteristics:	<p>Eye contact: Adverse symptoms may include the following: pain, watering, redness. Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing Skin contact: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, skin burns, ulcerations and necrosis may occur Ingestion: Adverse symptoms may include the following: stomach pains</p>
Delayed and immediate effects and also chronic effects from short and long term exposure:	<p>Short term exposure Potential immediate effects: No known significant effects or critical hazards. Potential delayed effects: No known significant effects or critical hazards.</p> <p>Long term exposure Potential immediate effects: No known significant effects or critical hazards. Potential delayed effects: No known significant effects or critical hazards.</p>
Potential chronic health effects:	<p>General: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. If sensitized to hexavalent chromium, a severe allergic dermal reaction may occur when subsequently exposed to very low levels.</p> <p>Carcinogenicity: Portland cement is not classifiable as a human carcinogen. Crystalline silica is considered a hazard by inhalation. IARC has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiology studies that were considered sufficient for carcinogenicity. Excessive exposure to crystalline silica can cause silicosis, a non-cancerous lung disease.</p> <p>Mutagenicity: No known significant effects or critical hazards.</p> <p>Teratogenicity: No known significant effects or critical hazards.</p> <p>Developmental effects: No known significant effects or critical hazards.</p> <p>Fertility effects: No known significant effects or critical hazards.</p>
Numerical measures of toxicity:	<p>Acute toxicity estimates: There are no data available.</p>

Section 12. Ecological Information

Toxicity

Product/ingredient name	Result	Species	Exposure
Calcium oxide	Chronic NOEC 100 mg/L Fresh water	Fish-Oreochromis niloticus-Juvenile (Fledgling, Hatchling, Weanling)	46 days

Persistence and degradability:	There are not data available.
Bioaccumulative potential:	There are not data available.
Mobility in soil:	Soil/water partition coefficient (Koc): Not available.
Other adverse effects:	No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods:	<p>The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Untreated waste should not be released to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe manner. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners</p>
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may retain some product residues. Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains and sewers.

Section 14. Transportation information

	DOT Classification	IMDG	IATA
UN number	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	None	None	None
Canada TDG	-	-	-
Additional information	-	-	-

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

Section 15. Regulatory Information

TSCA 6 final risk management: Chromium, ion (Cr6+)

United States inventory (TSCA 8b): Cements are considered to be statutory mixtures under TSCA. CAS 65997-15-1 is included on the TSCA inventory.

CERCLA: This product is not listed as a CERCLA substance

Clean Air Act Section 112 (b): Hazardous Air Pollutants (HAPs) – Not listed

Clean Air Act Section 602: Class I Substances - Not listed

Clean Air Act Section 602: Class II Substances - Not listed

DEA List I Chemicals: (Precursor Chemicals) – Not listed

DEA List II Chemicals: (Essential Chemicals) – Not listed

Canada NSNR Status – Listed on DSL or exempt

SARA 311/312

Classification: Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire Hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Calcium oxide	0-5	No	No	No	Yes	No
Quartz	>0.1	No	No	No	No	Yes
Chromium, ion (Cr6+)	<0.1	No	No	No	Yes	Yes

SARA 313

	Product name	CAS number	%
Form R-Report requirements	Chromium, ion (Cr6+)	8540-29-9	<0.1

State regulations

Massachusetts: The following components are listed: cement, portland, chemicals, limestone

New York: None of the components are listed.
New Jersey: The following components are listed: cement, portland, chemicals, gypsum, limestone
Pennsylvania: The following components are listed: cement, portland, chemicals, gypsum, limestone

California Prop. 65

WARNING: This product contains crystalline silica and chemicals (trace metals) known to the State of California to cause cancer, birth defects or other reproductive harm. California law requires the above warning in the absence of definitive testing to prove the defined risks do not exist.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Quartz	Yes	No	No	No
Chromium, ion (Cr6+)	Yes	Yes	0.001µg/day (inhalation)	8.2 micrograms/day (ingestion)

International regulations

International lists: **Canadian Domestic Substances List (DSL):** Portland cement is included on the DSL.
Mexico Inventory (INSQ): All components are listed or exempted.

WHMIS Classification: D2A "Materials Causing Other Toxic Effects"



Section 16. Other Information

Date of issue: 01/01/2022
Replaces: 07/01/2018
Revised Section(s): Section 8, 11, 14, 15

Notice to reader

While the information provided in this safety data sheet is believed to provide a useful summary of the hazards of portland cement as it is commonly used, the sheet cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. In particular, the data furnished in this sheet do not address hazards that may be posed by other materials mixed with portland cement to produce portland cement products. Users should review other relevant material safety data sheets before working with this portland cement or working on portland cement products, for example, portland cement concrete.

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Abbreviations

ACGIH — American Conference of Governmental Industrial Hygienists
CAS — Chemical Abstract Service
CERCLA — Comprehensive Emergency Response and Comprehensive Liability Act
CFR — Code of Federal Regulations
DOT — Department of Transportation
GHS — Globally Harmonized System
HEPA — High Efficiency Particulate Air
IATA — International Air Transport Association
IARC — International Agency for Research on Cancer
IMDG — International Maritime Dangerous Goods
NIOSH — National Institute of Occupational Safety and Health
NOEC — No Observed Effect Concentration
NTP — National Toxicology Program
OSHA — Occupational Safety and Health Administration
PEL — Permissible Exposure Limit
REL — Recommended Exposure Limit
RQ — Reportable Quantity
SARA — Superfund Amendments and Reauthorization Act
SDS — Safety Data Sheet
TLV — Threshold Limit Value
TPQ — Threshold Planning Quantity
TSCA — Toxic Substances Control Act
TWA — Time-Weighted Average
UN — United Nations



Northland Gear Lube 85W140

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 01/16/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Northland Gear Lube 85W140
Product code : 50C4

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Gear Lubricant

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute Tox. 4 (Inhalation:dust,mist) H332
Skin Irrit. 2 H315
Eye Irrit. 2A H319
Skin Sens. 1 H317

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust, fume, mist, spray, vapours
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER/doctor/physician if you feel unwell
P332+P313 - If skin irritation occurs: Get medical advice/attention
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P362+P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

other hazards which do not result in classification

: Spills of this product present a serious slipping hazard.

Northland Gear Lube 85W140

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

*Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%)	(CAS No) 64741-88-4	< 27	Acute Tox. 4 (Inhalation:dust,mist), H332
Residual oils, petroleum, solvent-refined	(CAS No) 64742-01-4	< 27	Acute Tox. 4 (Inhalation:dust,mist), H332
Polysulfides, di-tert-butyl	(CAS No) 68937-96-2	2,8 - 3,5	Skin Sens. 1B, H317
Phosphoric acid, bis(2-ethylhexyl) ester	(CAS No) 298-07-7	0,7 - 1,5	Acute Tox. 4 (Dermal), H312 Skin Corr. 1C, H314 Eye Dam. 1, H318

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. If material is injected under the skin, seek medical attention immediately. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor. Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product.

Precautions for safe handling : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Use only in well-ventilated areas. Take precautionary measures against static discharge. Avoid generation of dust.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ensure adequate ventilation. Avoid static electricity discharges. Ground/bond container and receiving equipment. A washing facility/water for eye and skin cleaning purposes should be present.

Storage conditions : Keep out of reach of children. Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep container tightly closed and dry.

Incompatible materials : Strong oxidizing agents.

Storage temperature : Store at ambient temperature

Heat and ignition sources : Remove all sources of ignition.

Storage area : Protect against direct sunlight.

Special rules on packaging : Correctly labelled. Do not store in unlabeled containers.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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Personal protective equipment : Avoid all unnecessary exposure. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Gloves. Protective clothing. Protective goggles.



Hand protection : Wear protective gloves. Use neoprene or rubber gloves.
Eye protection : Chemical goggles or safety glasses, with side-shields.
Skin and body protection : If skin contact or contamination of clothing is possible, protective clothing should be worn, safety foot-wear.
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls : Avoid release to the environment.
Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Clear amber.
Odour : Petroleum. Sulfur. Characteristic.
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : > 300 °C (> 572 °F)
Flash point : 232 °C (450 °F)
Self ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : < 0,01 mm Hg Maximum @ 37,8 °C (100 °F)
Relative vapour density at 20 °C : > 1
Relative density : 0,906 g/cm³ at 15,6 °C / 60 °F
Solubility : Water: insoluble
Organic solvent: completely soluble
Log Pow : No data available
Log Kow : Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic : 397 cSt @ 40°C
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Hazardous polymerisation does not occur.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidizing agents.

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10.6. Hazardous decomposition products

On burning: release of (highly) toxic gases/vapours, fume. Carbon monoxide. Carbon dioxide. Aldehydes. Hydrogen sulfide. Sulfur oxides. Nitrogen oxides (NO_x). Phosphorus oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

Northland Gear Lube 85W140	
ATE (dust,mist)	1,500 mg/l/4h

Polysulfides, di-tert-butyl (68937-96-2)	
LD50 oral rat	6500 mg/kg
ATE (oral)	6500,000 mg/kg bodyweight

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
LD50 oral rat	4940 µl/kg
LD50 dermal rabbit	1250 µl/kg
ATE (dermal)	1100,000 mg/kg bodyweight

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2,18 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Residual oils, petroleum, solvent-refined (64742-01-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2,18 mg/l/4h
ATE (gases)	4500,000 ppmV/4h
ATE (vapours)	2,180 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Harmful if inhaled.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : In case of large spills the product may be hazardous to aquatic organisms due to possible formation of a film on the surface water which can diminish dissolved oxygen levels. This material contains phosphorus which is a controlled element for disposal in effluent waters in most sections of North America. Phosphorus is known to enhance the formation of algae. Severe algae growth can reduce oxygen content in the water possibly below levels necessary to support marine life.

Polysulfides, di-tert-butyl (68937-96-2)	
LC50 fishes 1	250 - 500 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

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Polysulfides, di-tert-butyl (68937-96-2)	
LC50 fish 2	> 1000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])
Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
LC50 fishes 1	20 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Residual oils, petroleum, solvent-refined (64742-01-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Northland Gear Lube 85W140	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Gear Lube 85W140	
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. Dispose of contents/container to comply with applicable local, national and international regulations. Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Polysulfides, di-tert-butyl (68937-96-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)	

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Residual oils, petroleum, solvent-refined (64742-01-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Residual oils, petroleum, solvent-refined (64742-01-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Residual oils, petroleum, solvent-refined (64742-01-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Inhalation:dust,mist) H332
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Skin Sens. 1 H317
Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xi; R36/38
R43
N ; R51/53

Full text of R-phrases: see section 16

15.2.2. National regulations

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on the Canadian Ingredient Disclosure List

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Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the AICS (the Australian Inventory of Chemical Substances)
 Listed on Inventory of Existing Chemical Substances (IECSC)
 Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
 Listed on the Korean ECL (Existing Chemical List) inventory.
 Listed on New Zealand - Inventory of Chemicals (NZIoC)
 Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Residual oils, petroleum, solvent-refined (64742-01-4)

Listed on the AICS (the Australian Inventory of Chemical Substances)
 Listed on Inventory of Existing Chemical Substances (IECSC)
 Listed on the Korean ECL (Existing Chemical List) inventory.
 Listed on New Zealand - Inventory of Chemicals (NZIoC)
 Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

Polysulfides, di-tert-butyl (68937-96-2)

U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
 U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
 U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
 U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
 U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - New Jersey - Special Health Hazards Substances List
 U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

Residual oils, petroleum, solvent-refined (64742-01-4)

U.S. - Texas - Effects Screening Levels - Long Term
 U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
Skin Sens. 1B	Sensitisation — Skin, category 1B
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H411	Toxic to aquatic life with long lasting effects
R36/38	Irritating to eyes and skin

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R43	May cause sensitisation by skin contact
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks



SAFETY DATA SHEET

1. Identification

Product identifier Power Lube® Multi-Purpose Lubricant

Other means of identification

Product Code No. 05005 (Item# 1003621)

Recommended use Multi-purpose lubricant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300

Technical Assistance 800-521-3168

Customer Service 800-272-4620

24-Hour Emergency (CHEMTREC) 800-424-9300 (US)
703-527-3887 (International)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Gases under pressure Compressed gas

Health hazards Aspiration hazard Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area.

Response If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting.

Storage Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
distillates (petroleum), hydrotreated light		64742-47-8	60 - 70
paraffin oils (petroleum), catalytic dewaxed heavy		64742-70-7	10 - 20
paraffin oils (petroleum), catalytic dewaxed light		64742-71-8	5 - 10
butyl stearate		123-95-5	3 - 5
carbon dioxide		124-38-9	1 - 3
methyl salicylate		119-36-8	1 - 3
petrolatum		8009-03-8	1 - 3
sorbitan monotallate		61791-48-8	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Headache. Nausea, vomiting. Diarrhea.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Combustible. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. For product usage instructions, see the product label.

Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m ³	
		5000 ppm	
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	PEL	400 mg/m ³	
		100 ppm	
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	PEL	5 mg/m ³	Mist.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	PEL	5 mg/m ³	Mist.
petrolatum (CAS 8009-03-8)	PEL	5 mg/m ³	Mist.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
butyl stearate (CAS 123-95-5)	TWA	10 mg/m ³	
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm	
	TWA	5000 ppm	
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	TWA	5 mg/m ³	Inhalable fraction.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	TWA	5 mg/m ³	Inhalable fraction.
petrolatum (CAS 8009-03-8)	TWA	5 mg/m ³	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m ³	
	TWA	30000 ppm	
		9000 mg/m ³	
		5000 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	100 mg/m ³	
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	STEL	10 mg/m ³	Mist.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	TWA	5 mg/m ³	Mist.
	STEL	10 mg/m ³	Mist.
petrolatum (CAS 8009-03-8)	TWA	5 mg/m ³	Mist.
	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear protective gloves such as: Neoprene. Nitrile.

Other

Wear suitable protective clothing.

Respiratory protection

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state Liquid.

Form Aerosol.

Color Amber.

Odor Mint.

Odor threshold Not available.

pH Not available.

Melting point/freezing point -56.2 °F (-49 °C) estimated

Initial boiling point and boiling range 212 °F (100 °C) estimated

Flash point 196 °F (91.1 °C) Tag Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 0.6 % estimated

Flammability limit - upper (%) 5.5 % estimated

Vapor pressure 2031.3 hPa estimated

Vapor density Not available.

Relative density	0.85 estimated
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	428 °F (220 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	75.3 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Prolonged skin contact may cause temporary irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics

Aspiration may cause pulmonary edema and pneumonitis. Headache. Nausea, vomiting. Diarrhea.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
butyl stearate (CAS 123-95-5)		
Acute		
Oral		
LD50	Rat	32 g/kg
distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 20 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg
methyl salicylate (CAS 119-36-8)		
Acute		
Oral		
LD50	Rat	887 mg/kg
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg

Components	Species	Test Results
Oral LD50	Rat	> 5000 mg/kg
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)		
Acute		
Dermal LD50	Rabbit	> 2000 mg/kg
Oral LD50	Rat	> 5000 mg/kg
petrolatum (CAS 8009-03-8)		
Acute		
Dermal LD50	Rabbit	> 2000 mg/kg
Inhalation LC50	Rat	> 20 mg/l, 4 hours
Oral LD50	Rat	> 2000 mg/kg
sorbitan monotallate (CAS 61791-48-8)		
Acute		
Dermal LD50	Rabbit	> 2000 mg/kg
Inhalation LC50	Rat	> 20 mg/l, 4 hours
Oral LD50	Rat	39800 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Components	Species	Test Results
distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia pulex)
		2.7 - 5.1 mg/l, 48 hours
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Daphnia
		> 100 mg/l, 48 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

methyl salicylate 2.55

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products The dispensed liquid product is not a RCRA hazardous waste (See 40 CFR Part 261.20 - 261.33). Empty container can be recycled. Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national regulations.

Hazardous waste code Not regulated.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

14. Transport information

DOT

UN number UN1950
UN proper shipping name Aerosols, flammable, Limited Quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not applicable.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions N82
Packaging exceptions 306
Packaging non bulk None
Packaging bulk None

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable, Limited Quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group Not applicable.
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG

UN number UN1950
UN proper shipping name AEROSOLS, Limited Quantity

Transport hazard class(es)	
Class	2
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
SARA 304 Emergency release notification	Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated.
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance	Not listed.
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed.
CERCLA Hazardous Substances: Reportable quantity	Not listed.
	Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated.
Safe Drinking Water Act (SDWA)	Not regulated.
Food and Drug Administration (FDA)	Not regulated.
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
Section 311/312	Immediate Hazard - Yes
Hazard categories	Delayed Hazard - No
	Fire Hazard - Yes
	Pressure Hazard - Yes
	Reactivity Hazard - No
SARA 302 Extremely hazardous substance	No
US state regulations	
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))	distillates (petroleum), hydrotreated light (CAS 64742-47-8) paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7) paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8) petrolatum (CAS 8009-03-8)
US. New Jersey Worker and Community Right-to-Know Act	carbon dioxide (CAS 124-38-9)
US. Massachusetts RTK - Substance List	carbon dioxide (CAS 124-38-9) paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7) paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)
US. Pennsylvania Worker and Community Right-to-Know Law	carbon dioxide (CAS 124-38-9)

distillates (petroleum), hydrotreated light (CAS 64742-47-8)
 methyl salicylate (CAS 119-36-8)
 paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)
 paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)

US. Rhode Island RTK

carbon dioxide (CAS 124-38-9)
 methyl salicylate (CAS 119-36-8)
 paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)
 paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)
 petrolatum (CAS 8009-03-8)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 97.1 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as a Multi-Purpose Lubricant. This product is compliant for use in all 50 states.

VOC content (CA) 0 %

VOC content (OTC) 0 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	02-07-2014
Revision date	10-06-2017
Prepared by	Allison Yoon
Version #	02
Further information	CRC # 462F/1002459
HMIS® ratings	Health: 1* Flammability: 3 Physical hazard: 0 Personal protection: B
NFPA ratings	Health: 1 Flammability: 3 Instability: 0

NFPA ratings



Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision Information

This document has undergone significant changes and should be reviewed in its entirety.



Northland Pride EP I Extreme Duty Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 04/06/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Substance
Trade name : Pride EP I Extreme Duty Grease
Product code : 85G0
Other means of identification : Lubricating Grease

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Lubricating Grease

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Injection under skin can cause severe injury. Most damage occurs i the first few hours. Initial symptoms may be minimal.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Northland Pride EP I Extreme Duty Grease

Full text of H-phrases: see section 16

3.2. Mixture

This product does not contain any substance presented in above cut-off concentration limits that classified as hazardous in accordance with paragraph (d) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Injection of petroleum hydrocarbons requires immediate medical attention.

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

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- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: May produce an allergic reaction.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
- Symptoms/injuries after eye contact : Oil Mist. May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.
- 6.1.1. For non-emergency personnel
- Emergency procedures : Evacuate unnecessary personnel.
- 6.1.2. For emergency responders
- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Special danger of slipping by leaking/spilling product.

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- Precautions for safe handling : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed.
- Incompatible materials : Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Protect against direct sunlight.
- Special rules on packaging : Correctly labelled.

7.3. Specific end use(s)


No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbonic acid calcium salt (471-34-1)		
USA OSHA	OSHA PEL (TWA) (mg/m ³) : Respirable fraction	5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³) : Total dust	15 mg/m ³

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.
- 
- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Chemical goggles or safety glasses, with side-shields.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection.
- Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid, Tacky
- Colour : Purple.
- odour : Petroleum, characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available

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Flash point	: >200 °C (392 °F)
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 1 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.873 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
NLGI Grade	: 1

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Carbonic acid calcium salt (471-34-1)	
LD50 oral rat	6450 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classifiedBased on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classifiedBased on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classifiedBased on available data, the classification criteria are not met
Aspiration hazard	: Not classifiedMay be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: May produce an allergic reaction.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Oil Mist. May cause eye irritation.

Northland Pride EP I Extreme Duty Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Carbonic acid calcium salt (471-34-1)

LC50 fishes 1

56000 mg/l (Exposure time: 96 h - Species: Gambusia affinis - Adult [Fresh water])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information

: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations. Product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Additional information

: Used oil/grease, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information

: No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Northland Pride EP I Extreme Duty Grease

SARA Section 311/312 Hazard Classes

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802

Clean Water Act (CWA) 311

Maleic anhydride; Naphthalene

Clean Water Act (CWA) 307

Zinc compounds; Antimony compounds; zinc oxide; Naphthalene

Northland Pride EP I Extreme Duty Grease

All Components listed on the United States TSCA (Toxic Substances Control Act) inventory

Northland Pride EP I Extreme Duty Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

15.2. International regulations

CANADA

Northland Pride EP I Extreme Duty Grease

All components listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Northland Pride EP I Extreme Duty Grease

All Components listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

Northland Pride EP I Extreme Duty Grease

All Components listed on the AICS (the Australian Inventory of Chemical Substances)
All Components listed on Inventory of Existing Chemical Substances (IECSC)
All Components listed on the Korean ECL (Existing Chemical List) inventory.
All Components listed on New Zealand - Inventory of Chemicals (NZIoC)
All Components listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

*Prop 65 – Contains Naphthalene

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks



Northland Pride EP II Extreme Duty Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 04/06/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Substance
Trade name : Pride EP II Extreme Duty Grease
Product code : 85E0
Other means of identification : Lubricating Grease

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Lubricating Grease

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Injection under skin can cause severe injury. Most damage occurs in the first few hours. Initial symptoms may be minimal.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Northland Pride EP II Extreme Duty Grease

Full text of H-phrases: see section 16

3.2. Mixture

This product does not contain any substance presented in above cut-off concentration limits that classified as hazardous in accordance with paragraph (d) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Injection of petroleum hydrocarbons requires immediate medical attention.

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

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- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: May produce an allergic reaction.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
- Symptoms/injuries after eye contact : Oil Mist. May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.
- 6.1.1. For non-emergency personnel
- Emergency procedures : Evacuate unnecessary personnel.
- 6.1.2. For emergency responders
- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Special danger of slipping by leaking/spilling product.

Northland Pride EP II Extreme Duty Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

- Precautions for safe handling : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed.
- Incompatible materials : Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Protect against direct sunlight.
- Special rules on packaging : Correctly labelled.

7.3. Specific end use(s)


No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbonic acid calcium salt (471-34-1)		
USA OSHA	OSHA PEL (TWA) (mg/m ³) : Respirable fraction	5 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³) : Total dust	15 mg/m ³

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.
- 
- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Chemical goggles or safety glasses, with side-shields.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection.
- Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid, Tacky
- Colour : Purple.
- odour : Petroleum, characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available

Northland Pride EP II Extreme Duty Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Flash point	: >200 °C (392 °F)
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 1 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.873 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
NLGI Grade	: 2

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Carbonic acid calcium salt (471-34-1)	
LD50 oral rat	6450 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: May produce an allergic reaction.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Oil Mist. May cause eye irritation.

Northland Pride EP II Extreme Duty Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Carbonic acid calcium salt (471-34-1)

LC50 fishes 1

56000 mg/l (Exposure time: 96 h - Species: Gambusia affinis - Adult (Fresh water))

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information

: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations. Product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Additional information

: Used oil/grease, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information

: No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Northland Pride EP II Extreme Duty Grease	
SARA Section 311/312 Hazard Classes	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802
Clean Water Act (CWA) 311	Maleic anhydride; Naphthalene
Clean Water Act (CWA) 307	Zinc compounds; Antimony compounds; zinc oxide; Naphthalene

Northland Pride EP II Extreme Duty Grease

All Components listed on the United States TSCA (Toxic Substances Control Act) inventory

Northland Pride EP II Extreme Duty Grease

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

15.2. International regulations

CANADA

Northland Pride EP II Extreme Duty Grease

All components listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Northland Pride EP II Extreme Duty Grease

All Components listed on the EEC inventory EINECS (European inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

Northland Pride EP II Extreme Duty Grease

All Components listed on the AICS (the Australian Inventory of Chemical Substances)
All Components listed on Inventory of Existing Chemical Substances (IECSC)
All Components listed on the Korean ECL (Existing Chemical List) inventory.
All Components listed on New Zealand - Inventory of Chemicals (NZIoC)
All Components listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

*Prop 65 – Contains Naphthalene

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012)

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SAFETY DATA SHEET

Airgas
an Air Liquide company

Propane

Section 1. Identification

GHS product identifier : Propane

Chemical name : propane

Other means of identification : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.

Product type : Liquefied gas

Product use : Synthetic/Analytical chemistry.

Synonym : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.

SDS # : 001045

Supplier's details : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

24-hour telephone : 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE GASES - Category 1
GASES UNDER PRESSURE - Liquefied gas

GHS label elements

Hazard pictograms :



Signal word :

Danger

Hazard statements :

Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May cause frostbite.
May displace oxygen and cause rapid suffocation.
May form explosive mixtures with air.

Precautionary statements

General :

Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution.

Prevention :

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response :

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.

Propane

Section 2. Hazards identification

Disposal : Not applicable.
Hazards not otherwise classified : Liquid can cause burns similar to frostbite.

Section 3. Composition/information on ingredients

Substance/mixture : Substance
Chemical name : propane
Other means of identification : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.
Product code : 001045

CAS number/other identifiers

CAS number : 74-98-6

Ingredient name	%	CAS number
Propane	100	74-98-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. As this product rapidly becomes a gas when released, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Liquid can cause burns similar to frostbite.
Inhalation : No known significant effects or critical hazards.

Section 4. First aid measures

- Frostbite** : Try to warm up the frozen tissues and seek medical attention.
Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:, frostbite
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:, frostbite
Ingestion : Adverse symptoms may include the following:, frostbite

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment

Section 6. Accidental release measures

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Do not get in eyes or on skin or clothing. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Propane	NIOSH REL (United States, 10/2016). TWA: 1800 mg/m ³ 10 hours. TWA: 1000 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 1800 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 1800 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours.

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Thermal hazards** : If there is a risk of contact with the liquid, all protective equipment worn should be suitable for use with extremely low temperature materials.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Gas.
- Color** : Colorless.
- Odor** : Odorless.BUT MAY HAVE SKUNK ODOR ADDED.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -187.6°C (-305.7°F)

Section 9. Physical and chemical properties

Critical temperature	: 96.55°C (205.8°F).
Flash point	: Closed cup: -104°C (-155.2°F) Open cup: -104°C (-155.2°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and oxidizing materials.
Lower and upper explosive (flammable) limits	: Lower: 1.8% Upper: 8.4%
Vapor pressure	: 109 (psig)
Vapor density	: 1.6 (Air = 1)
Specific Volume (ft³/lb)	: 8.6206
Gas Density (lb/ft³)	: 0.116 (25°C / 77 to °F)
Relative density	: Not applicable.
Solubility	: Not available.
Solubility in water	: 0.0244 g/l
Partition coefficient: n-octanol/water	: 1.09
Auto-ignition temperature	: 287°C (548.6°F)
Decomposition temperature	: Not available.
Viscosity	: Not applicable.
Flow time (ISO 2431)	: Not available.
Molecular weight	: 44.11 g/mole
<u>Aerosol product</u>	
Heat of combustion	: -46012932 J/kg

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow gas to accumulate in low or confined areas.
Incompatible materials	: Oxidizers
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Liquid can cause burns similar to frostbite.
Inhalation : No known significant effects or critical hazards.
Skin contact : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.
Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:, frostbite
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:, frostbite
Ingestion : Adverse symptoms may include the following:, frostbite

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.

Section 11. Toxicological information

Potential chronic health effects

Not available.

General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Propane	1.09	-	low

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1978	UN1978	UN1978	UN1978	UN1978
UN proper shipping name	PROPANE SEE ALSO PETROLEUM GASES, LIQUEFIED	PROPANE	PROPANE SEE ALSO PETROLEUM GASES, LIQUEFIED (propane)	PROPANE	PROPANE
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

“Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product.”

Additional information

DOT Classification : Limited quantity
Yes.

Packaging instruction

Passenger aircraft

Quantity limitation: Forbidden.

Cargo aircraft

Quantity limitation: 150 kg

Special provisions

19, T50

For domestic transportation only, UN1075 may be substituted for the UN number shown as long as the substitution is consistent on package markings, shipping papers, and emergency response information. See 49 CFR 172.102 Special Provision 19.

Containers of NON-ODORIZED liquefied petroleum gas must be marked either NON-ODORIZED or NOT ODORIZED as of September 30, 2006. [49 CFR 172.301(f), 326(d), 330(c) and 338(e)]

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
Explosive Limit and Limited Quantity Index 0.125
ERAP Index 3000
Passenger Carrying Vessel Index 65
Passenger Carrying Road or Rail Index Forbidden
Special provisions 29, 42

IATA : Quantity limitation Passenger and Cargo Aircraft: Forbidden. Cargo Aircraft Only: 150 kg.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Air Act (CAA) 112 regulated flammable substances: propane

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

State regulations

Massachusetts : This material is listed.

New York : This material is not listed.

New Jersey : This material is listed.

Pennsylvania : This material is listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : This material is listed or exempted.

Canada : This material is listed or exempted.

China : This material is listed or exempted.

Section 15. Regulatory information

Japan	: Japan inventory (ENCS): This material is listed or exempted. Japan inventory (ISHL): This material is listed or exempted.
New Zealand	: This material is listed or exempted.
Philippines	: This material is listed or exempted.
Republic of Korea	: This material is listed or exempted.
Taiwan	: This material is listed or exempted.
Thailand	: Not determined.
Turkey	: This material is listed or exempted.
United States	: This material is active or exempted.
Viet Nam	: This material is listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

	2
Flammability	4
	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE GASES - Category 1	Expert judgment
GASES UNDER PRESSURE - Liquefied gas	Expert judgment

History

Date of printing	: 11/15/2020
Date of issue/Date of revision	: 11/15/2020
Date of previous issue	: 10/5/2020
Version	: 1.02

Section 16. Other information

- Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations
- References** : Not available.
- Other special considerations** : The information below is given to call attention to the issue of "Naturally occurring radioactive materials". Although Radon-222 levels in the product represented by this MSDS do not present any direct Radon exposure hazard, customers should be aware of the potential for Radon daughter build up within their processing systems, whatever the source of their product streams. Radon-222 is a naturally occurring radioactive gas which can be a contaminant in natural gas. During subsequent processing, Radon tends to be concentrated in Liquefied Petroleum Gas streams and in product streams having a similar boiling point range. Industry experience has shown that this product may contain small amounts of Radon-222 and its radioactive decay products, called Radon "daughters". The actual concentration of Radon-222 and radioactive daughters in the delivered product is dependent on the geographical source of the natural gas and storage time prior to delivery. Process equipment (i.e. lines, filters, pumps and reaction units) may accumulate significant levels of radioactive daughters and show a gamma radiation reading during operation. A potential external radiation hazard exists at or near any pipe valve or vessel containing a Radon enriched stream, or containing internal deposits of radioactive material due to the transmission of gamma radiation through its wall. Field studies reported in the literature have not shown any conditions that subject workers to cumulative exposures in excess of general population limits. Equipment emitting gamma radiation should be presumed to be internally contaminated with alpha emitting decay products which may be a hazard if inhaled or ingested. Protective equipment such as coveralls, gloves, and respirator (NIOSH/MHSA approved for high efficiency particulates and radionuclides, or supplied air) should be worn by personnel entering a vessel or working on contaminated process equipment to prevent skin contamination, ingestion, or inhalation of any residues containing alpha radiation. Airborne contamination may be minimized by handling scale and/or contaminated materials in a wet state.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Airgas
an Air Liquide company

Propylene

Section 1. Identification

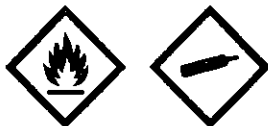
GHS product identifier : Propylene
Chemical name : Propylene
Other means of identification : propylene; 1-Propene; propylene in gaseous state, impure; propylene liquefied, impure; propene, pure; propylene, pure; Methylethene; Methylethylene; prop-1-ene; 1-Propylene; R 1270
Product type : Gas.
Product use : Synthetic/Analytical chemistry.
Synonym : propylene; 1-Propene; propylene in gaseous state, impure; propylene liquefied, impure; propene, pure; propylene, pure; Methylethene; Methylethylene; prop-1-ene; 1-Propylene; R 1270
SDS # : 001046
Supplier's details : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253
24-hour telephone : 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE GASES - Category 1
GASES UNDER PRESSURE - Liquefied gas

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.
May form explosive mixtures with air.

Precautionary statements

General : Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution.

Prevention : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response : Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.

Storage : Protect from sunlight. Store in a well-ventilated place.

Disposal : Not applicable.

Propylene

Section 3. Composition/information on ingredients

Substance/mixture : Substance
Chemical name : Propylene
Other means of identification : propylene; 1-Propene; propylene in gaseous state, impure; propylene liquefied, impure; propene, pure; propylene, pure; Methylethene; Methylethylene; prop-1-ene; 1-Propylene; R 1270
Product code : 001046

CAS number/other identifiers

CAS number : 115-07-1

Ingredient name	%	CAS number
propylene	100	115-07-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : As this product is a gas, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Frostbite : Try to warm up the frozen tissues and seek medical attention.
Ingestion : As this product is a gas, refer to the inhalation section.

Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

Section 4. First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
Use only non-sparking tools. Avoid contact with eyes, skin and clothing. Empty containers retain product residue and can be hazardous. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
propylene	ACGIH TLV (United States, 3/2019). TWA: 500 ppm 8 hours. ACGIH TLV (United States, 1/2005). TWA: 500 ppm 8 hours. Form: All forms

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Gas. [Compressed gas.]
- Color** : Colorless.
- Odor** : Mild.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -185°C (-301°F)
- Boiling point** : -48°C (-54.4°F)
- Critical temperature** : 91.85°C (197.3°F)
- Flash point** : Closed cup: -107.78°C (-162°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and oxidizing materials.
- Lower and upper explosive (flammable) limits** : Lower: 2%
Upper: 11%
- Vapor pressure** : 136.6 (psig)
- Vapor density** : 1.5 (Air = 1)
- Specific Volume (ft³/lb)** : 9.0909
- Gas Density (lb/ft³)** : 0.11 (25°C / 77 to °F)
- Relative density** : Not applicable.
- Solubility** : Not available.
- Solubility in water** : 0.2 g/l
- Partition coefficient: n-octanol/water** : 1.77
- Auto-ignition temperature** : 455°C (851°F)
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Flow time (ISO 2431)** : Not available.
- Molecular weight** : 42.09 g/mole

Aerosol product

Propylene

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- Incompatible materials** : Oxidizers
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
propylene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : As this product is a gas, refer to the inhalation section.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
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Section 12. Ecological information

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1077	UN1077	UN1077	UN1077	UN1077
UN proper shipping name	PROPYLENE	PROPYLENE	PROPYLENE	PROPYLENE	PROPYLENE
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Additional information

DOT Classification : **Limited quantity** Yes.
Quantity limitation Passenger aircraft/rail: Forbidden. Cargo aircraft: 150 kg.
Special provisions 19, T50

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
Explosive Limit and Limited Quantity Index 0.125
ERAP Index 3000
Passenger Carrying Vessel Index Forbidden
Passenger Carrying Road or Rail Index Forbidden
Special provisions 29

IATA : **Quantity limitation** Passenger and Cargo Aircraft: Forbidden. Cargo Aircraft Only: 150 kg.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Air Act (CAA) 112 regulated flammable substances: Propylene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Propylene	115-07-1	100
Supplier notification	Propylene	115-07-1	100

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : This material is listed.
New York : This material is not listed.
New Jersey : This material is listed.
Pennsylvania : This material is listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: This material is listed or exempted.
Canada	: This material is listed or exempted.
China	: This material is listed or exempted.
Europe	: This material is listed or exempted.
Japan	: Japan inventory (ENCS): This material is listed or exempted. Japan inventory (ISHL): This material is listed or exempted.
New Zealand	: This material is listed or exempted.
Philippines	: This material is listed or exempted.
Republic of Korea	: This material is listed or exempted.
Taiwan	: This material is listed or exempted.
Thailand	: Not determined.
Turkey	: This material is listed or exempted.
United States	: This material is active or exempted.
Viet Nam	: This material is listed or exempted.

Section 16. Other information

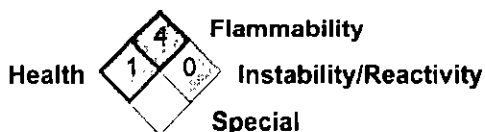
Hazardous Material Information System (U.S.A.)

Health	1
Flammability	4
Physical hazards	3

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE GASES - Category 1	Expert judgment

Section 16. Other information

History

Date of printing : 11/5/2020

Date of issue/Date of revision : 11/5/2020

Date of previous issue : 11/30/2017

Version : 1.01

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

MAPP GAS (Petroleum Gas, MAPD)

Airgas.

an Air Liquide company

Section 1. Identification

GHS product identifier : MAPP GAS (Petroleum Gas, MAPD)

Other means of identification : MAP, MAPP, Methylacetylene-Propadiene, Mixture of Methylacetylene and Propadiene

Product type : Liquefied gas

Product use : Synthetic/Analytical chemistry.

Synonym : MAP, MAPP, Methylacetylene-Propadiene, Mixture of Methylacetylene and Propadiene

SDS # : 002015

Supplier's details : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

24-hour telephone : 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE GASES - Category 1
GASES UNDER PRESSURE - Liquefied gas

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May cause frostbite.
May displace oxygen and cause rapid suffocation.
May form explosive mixtures with air.

Precautionary statements

General : Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution.

Prevention : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response : Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.

Storage : Protect from sunlight. Store in a well-ventilated place.

Disposal : Not applicable.

Hazards not otherwise classified : Liquid can cause burns similar to frostbite.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
 Other means of identification : MAP,MAPP,Methylacetylene-Propadiene, Mixture of Methylacetylene and Propadiene
 Product code : 002015

Ingredient name	%	CAS number
propylene	37 - 55	115-07-1
methyl acetylene	27 - 33	74-99-7
1,2-propadiene	13 - 15	463-49-0
isobutane	2 - 5	75-28-5
N-Butane	2 - 5	106-97-8
Propane	1 - 5	74-98-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. As this product rapidly becomes a gas when released, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Liquid can cause burns similar to frostbite.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.
- Frostbite** : Try to warm up the frozen tissues and seek medical attention.
- Ingestion** : Ingestion of liquid can cause burns similar to frostbite.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following: frostbite

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following: frostbite
Ingestion : Adverse symptoms may include the following: frostbite

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (groundwater, surface soil, etc.).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

- Small spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.
- Large spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Do not get in eyes or on skin or clothing. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
propylene	ACGIH TLV (United States, 3/2019). TWA: 500 ppm 8 hours.
methyl acetylene	ACGIH TLV (United States, 1/2005). TWA: 500 ppm 8 hours. Form: All forms
	ACGIH TLV (United States, 3/2019). Explosive potential. TWA: 1640 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours.
1,2-propadiene	NIOSH REL (United States, 10/2016). TWA: 1650 mg/m ³ 10 hours. TWA: 1000 ppm 10 hours.
	OSHA PEL (United States, 5/2018). TWA: 1650 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours.
	OSHA PEL 1989 (United States, 3/1989). TWA: 1650 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours.
isobutane	None. NIOSH REL (United States, 10/2016)

Section 8. Exposure controls/personal protection

<p>N-Butane</p>	<p>TWA: 800 ppm 10 hours. ACGIH TLV (United States, 3/2019). Explosive potential. STEL: 1000 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 1900 mg/m³ 10 hours. TWA: 800 ppm 10 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 1900 mg/m³ 8 hours. TWA: 800 ppm 8 hours. ACGIH TLV (United States, 3/2019). Explosive potential. STEL: 1000 ppm 15 minutes.</p>
<p>Propane</p>	<p>NIOSH REL (United States, 10/2016). TWA: 1800 mg/m³ 10 hours. TWA: 1000 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours. ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</p>

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Thermal hazards** : If there is a risk of contact with the liquid, all protective equipment worn should be suitable for use with extremely low temperature materials.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Gas. [Liquefied gas]
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : -102.7°C (-152.9°F) This is based on data for the following ingredient: Methyl Acetylene. Weighted average: -151.01°C (-239.8°F)
- Boiling point** : Not available.
- Critical temperature** : Lowest known value: 91.85°C (197.3°F) (Propylene).
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 2%
Upper: 13%
- Vapor pressure** : Not available.
- Vapor density** : Highest known value: 2.1 (Air = 1) (n-butane). Weighted average: 1.51 (Air = 1)
- Gas Density (lb/ft³)** : Weighted average: 0.11
- Relative density** : Not applicable.
- Solubility** : Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Flow time (ISO 2431)** : Not available.
- Molecular weight** : 42 g/mol

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous** : Hazardous reactions or instability may occur under certain conditions of storage or use.

Section 10. Stability and reactivity

- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- Incompatible materials** : Oxidizers
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : May Occur.

Conditions to Avoid: Elevated temperatures and pressures. Polymerization catalysts, such as metal alkyls, can cause uncontrolled polymerization. Contamination with oxygen can cause propadiene to form hazardous peroxides.

INHIBITORS/STABILIZERS

An inhibitor is added to the MAPD mixture to prevent potential unstable peroxide formation. Butanes (iso and/or normal) are also added to the MAPD mixture to prevent potential concentration of the methylacetylene and propadiene from reaching concentration levels that would render the mixture unstable in case of weathering off (evaporation of light components).

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
isobutane	LC50 Inhalation Vapor	Rat	658000 mg/m ³	4 hours
N-Butane	LC50 Inhalation Vapor	Rat	658000 mg/m ³	4 hours

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
propylene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Liquid can cause burns similar to frostbite.
Inhalation : No known significant effects or critical hazards.
Skin contact : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.
Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:, frostbite
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:, frostbite
Ingestion : Adverse symptoms may include the following:, frostbite

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

- General** : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
propylene	1.77	-	low
methyl acetylene	0.94	-	low
1,2-propadiene	1.45	-	low
isobutane	2.8	-	low
N-Butane	2.89	-	low
Propane	1.09	-	low

Mobility in soil






Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1060	UN1060	UN1060	UN1060	UN1060
UN proper shipping name	Methyl Acetylene and Propadiene mixtures, stabilized	Methyl Acetylene and Propadiene mixtures, stabilized	Methyl Acetylene and Propadiene mixtures, stabilized	Methyl Acetylene and Propadiene mixtures, stabilized	Methyl Acetylene and Propadiene mixtures, stabilized
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

“Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product.”

Additional information

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
Explosive Limit and Limited Quantity Index 0.125
FRAP Index 3000

Section 14. Transport information

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
Clean Air Act (CAA) 112 regulated flammable substances: Propylene; Methyl Acetylene; Propadiene; Isobutane; n-butane; propane

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Propylene	115-07-1	37 - 55
Supplier notification	Propylene	115-07-1	37 - 55

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: PROPYLENE; PROPENE; PROPYNE; METHYL ACETYLENE; ISOBUTANE; BUTANE; PROPANE

New York : None of the components are listed.

New Jersey : The following components are listed: PROPYLENE; 1-PROPENE; METHYL ACETYLENE; 1-PROPYNE; PROPADIENE; 1,2-PROPADIENE; Isobutane; PROPANE, 2-METHYL-; BUTANE; PROPANE

Pennsylvania : The following components are listed: 1-PROPENE; 1-PROPYNE; PROPANE, 2-METHYL-; BUTANE; PROPANE

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention I list Schedules I, II & III Chemicals

Section 15. Regulatory information

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: Not determined.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	/	1
Flammability		4
Physical hazards		3

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Section 16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE GASES - Category 1	Expert judgment
GASES UNDER PRESSURE - Liquefied gas	Expert judgment

History

Date of printing : 6/10/2021

Date of issue/Date of revision : 6/10/2021

Date of previous issue : 10/22/2018

Version : 1.02

Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET



PURELL® Advanced Hand Sanitizer Refreshing Gel

Version 1.1 Revision Date: 02/10/2015 MSDS Number: 36779-00002 Date of last issue: 12/12/2014
Date of first issue: 12/12/2014

SECTION 1. IDENTIFICATION

Product name : PURELL® Advanced Hand Sanitizer Refreshing Gel

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron OH 44311

Telephone : 1 (330) 255-6000

Emergency telephone : 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Eye irritation : Category 2A

GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.

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H319 Causes serious eye irritation.

Precautionary Statements

Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Vapors may form explosive mixture with air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Ethanol	64-17-5	>= 50 - < 70
Propan-2-ol	67-63-0	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.
Get medical attention if symptoms occur.

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In case of eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	: Causes serious eye irritation.
Protection of first-aiders	: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
Notes to physician	: Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO2)
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire fighting	: Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.
Hazardous combustion products	: Carbon oxides
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions,	: Remove all sources of ignition.
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- protective equipment and emergency procedures : Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.
- Environmental precautions : Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapors/mists with a water spray jet. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation.
- Advice on safe handling : Do not breathe vapors or spray mist. Do not swallow. Do not get in eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice. Non-sparking tools should be used. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labeled containers. Keep tightly closed.

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Keep in a cool, well-ventilated place.
 Store in accordance with the particular national regulations.
 Keep away from heat and sources of ignition.

Materials to avoid : Do not store with the following product types:
 Strong oxidizing agents
 Organic peroxides
 Flammable solids
 Pyrophoric liquids
 Pyrophoric solids
 Self-heating substances and mixtures
 Substances and mixtures which in contact with water emit flammable gases
 Explosives
 Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis	
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL	
			TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
			STEL	1,000 ppm	ACGIH
Propan-2-ol	67-63-0	TWA	200 ppm	ACGIH	
			STEL	400 ppm	ACGIH
			TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL	
		TWA	400 ppm 980 mg/m3	OSHA Z-1	

Biological occupational exposure limits

Ingredients	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of work-week	40 mg/l	ACGIH BEI

Engineering measures : Minimize workplace exposure concentrations.
 Use only in an area equipped with explosion proof exhaust ventilation.
 Use with local exhaust ventilation.

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Personal protective equipment

- Respiratory protection** : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
- Hand protection**
- Material** : Impervious gloves
- Material** : Flame retardant gloves
- Remarks** : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
- Eye protection** : Wear the following personal protective equipment:
Safety goggles
- Skin and body protection** : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Wear the following personal protective equipment:
Flame retardant antistatic protective clothing.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- Hygiene measures** : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : liquid
- Color** : clear, Colorless to pale yellow
- Odor** : citrus

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Odor Threshold	: No data available
pH	: 6.5 - 8.5
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: 70 °C
Flash point	: 25 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Density	: 0.8750 g/cm ³
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Autoignition temperature	: No data available
Decomposition temperature	: The substance or mixture is not classified self-reactive.
Viscosity	
Viscosity, kinematic	: 3,500 - 23,000 mm ² /s (20 °C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Flammable liquid and vapor. Vapors may form explosive mixture with air. Can react with strong oxidizing agents.

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Conditions to avoid : Heat, flames and sparks.
Incompatible materials : Oxidizing agents
Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Ingredients:

Ethanol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Propan-2-ol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 72.6 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: No skin irritation

Ingredients:

Ethanol:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

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Propan-2-ol:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Ingredients:

Ethanol:

Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

Propan-2-ol:

Species: Rabbit
Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitization.

Ingredients:

Ethanol:

Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Result: negative

Propan-2-ol:

Test Type: Buehler Test
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Ingredients:

Ethanol:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Ingestion
Result: negative

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Propan-2-ol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Carcinogenicity

Not classified based on available information.

Ingredients:

Propan-2-ol:

Species: Rat
Application Route: inhalation (vapor)
Exposure time: 104 weeks
Method: OECD Test Guideline 451
Result: negative

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Ingredients:

Ethanol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Propan-2-ol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion

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Result: negative

STOT-single exposure

Not classified based on available information.

Ingredients:

Propan-2-ol:

Assessment: May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Ingredients:

Ethanol:

Species: Rat
NOAEL: 2,400 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Propan-2-ol:

Species: Rat
NOAEL: 5000 ppm
Application Route: inhalation (vapor)
Exposure time: 104 w
Method: OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Ethanol:

- | | | |
|--|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h |
| Toxicity to algae | : | EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 9.6 mg/l
Exposure time: 9 d |

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- Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 32.1 mg/l
Exposure time: 0.25 h
- Propan-2-ol:**
Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 24 h
- Toxicity to algae : ErC50 (Scenedesmus quadricauda (Green algae)): > 1,800 mg/l
Exposure time: 8 d
- Toxicity to bacteria : EC50 (Pseudomonas putida): > 1,050 mg/l
Exposure time: 16 h

Persistence and degradability

Ingredients:

Ethanol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

Propan-2-ol:

Biodegradability : Result: rapidly degradable

Bioaccumulative potential

Ingredients:

Ethanol:

Partition coefficient: n-octanol/water : log Pow: -0.35

Propan-2-ol:

Partition coefficient: n-octanol/water : log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : Dispose of in accordance with local regulations.
- Contaminated packaging : Dispose of as unused product.

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Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.
(Ethanol, Propan-2-ol)
Class : 3
Packing group : III
Labels : 3

IATA-DGR

UN/ID No. : UN 1987
Proper shipping name : Alcohols, n.o.s.
(Ethanol, Propan-2-ol)
Class : 3
Packing group : III
Labels : Flammable Liquids
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.
(Ethanol, Propan-2-ol)
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.
Class : 3
Packing group : III
Labels : FLAMMABLE LIQUID
ERG Code : 127

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Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Propan-2-ol	67-63-0	3.4086 %
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US State Regulations

Pennsylvania Right To Know

Ethanol	64-17-5	50 - 70 %
Water	7732-18-5	30 - 50 %
Propan-2-ol	67-63-0	1 - 5 %

New Jersey Right To Know

Ethanol	64-17-5	50 - 70 %
Water	7732-18-5	30 - 50 %
Propan-2-ol	67-63-0	1 - 5 %

California Prop 65 This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

AICS : All ingredients listed or exempt.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), NECSI (Taiwan), TSCA (USA)

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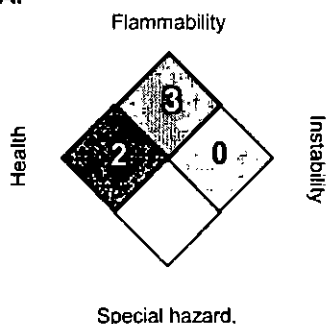
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SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

Full text of other abbreviations

- ACGIH : USA. ACGIH Threshold Limit Values (TLV)
- ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
- NIOSH REL : USA. NIOSH Recommended Exposure Limits
- OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- ACGIH / TWA : 8-hour, time-weighted average
- ACGIH / STEL : Short-term exposure limit
- NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
- NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
- OSHA Z-1 / TWA : 8-hour time weighted average
- Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>
- Revision Date : 02/10/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.



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1. Identification

Product identifier QD® Contact Cleaner

Other means of identification

Product code No. 03130 (Item# 1003407)

Recommended use Electronic cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300

Technical Assistance 800-521-3168

Customer Service 800-272-4620

24-Hour Emergency (CHEMTREC) 800-424-9300 (US)
703-527-3887 (International)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Gases under pressure Liquefied gas

Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Reproductive toxicity (fertility) Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 2

OSHA defined hazards Not classified.

Label elements



Signal word

Danger

Hazard statement

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. Toxic to aquatic life with long lasting effects.

Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.
Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Collect spillage.
Storage	Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-methylpentane		107-83-5	30 - 40
1,1-difluoroethane	HFC-152a	75-37-6	20 - 30
naphtha (petroleum), hydrotreated light		64742-49-0	20 - 30
n-hexane		110-54-3	5 - 10
2,2,4-trimethylpentane		540-84-1	3 - 5
isopropyl alcohol		67-63-0	1 - 3
n-pentane		109-66-0	1 - 3
2,2-dimethylbutane		75-83-2	< 1
2,3-dimethylbutane		79-29-8	< 1
3-methylpentane		96-14-0	< 1

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	If exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Remove all possible sources of ignition in the surrounding area. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2,2,4-trimethylpentane (CAS 540-84-1)	PEL	2350 mg/m ³
isopropyl alcohol (CAS 67-63-0)	PEL	500 ppm
		980 mg/m ³
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 ppm
		400 mg/m ³
n-hexane (CAS 110-54-3)	PEL	100 ppm
		1800 mg/m ³
n-pentane (CAS 109-66-0)	PEL	500 ppm
		2950 mg/m ³
		1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
2,2-dimethylbutane (CAS 75-83-2)	STEL	1000 ppm
	TWA	500 ppm
2,3-dimethylbutane (CAS 79-29-8)	STEL	1000 ppm
	TWA	500 ppm
2-methylpentane (CAS 107-83-5)	STEL	1000 ppm
	TWA	500 ppm
3-methylpentane (CAS 96-14-0)	STEL	1000 ppm
	TWA	500 ppm
isopropyl alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
n-hexane (CAS 110-54-3)	TWA	50 ppm
n-pentane (CAS 109-66-0)	TWA	1000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2,2,4-trimethylpentane (CAS 540-84-1)	Ceiling	1800 mg/m ³
	TWA	385 ppm
		350 mg/m ³
2,2-dimethylbutane (CAS 75-83-2)	Ceiling	75 ppm
	TWA	1800 mg/m ³
		510 ppm
2,3-dimethylbutane (CAS 79-29-8)	Ceiling	350 mg/m ³
	TWA	100 ppm
		1800 mg/m ³
2-methylpentane (CAS 107-83-5)	Ceiling	510 ppm
	TWA	350 mg/m ³
		100 ppm
	Ceiling	1800 mg/m ³
	TWA	510 ppm
		350 mg/m ³
		100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
3-methylpentane (CAS 96-14-0)	Ceiling	1800 mg/m3
		510 ppm
	TWA	350 mg/m3
isopropyl alcohol (CAS 67-63-0)		100 ppm
	STEL	1225 mg/m3
		500 ppm
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		980 mg/m3
	TWA	400 ppm
		400 mg/m3
n-hexane (CAS 110-54-3)	TWA	100 ppm
n-pentane (CAS 109-66-0)		180 mg/m3
	Ceiling	50 ppm
	TWA	1800 mg/m3
		610 ppm
		350 mg/m3
		120 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1,1-difluoroethane (CAS 75-37-6)	TWA	2700 mg/m3
		1000 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
isopropyl alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*
n-hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedione, without hydrolysis	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

n-hexane (CAS 110-54-3) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

n-hexane (CAS 110-54-3) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Polyvinyl chloride (PVC). Viton/butyl.

Other Wear suitable protective clothing.

Respiratory protection

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aerosol.
Color	Colorless.
Odor	Alcoholic.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-127.3 °F (-88.5 °C) estimated
Initial boiling point and boiling range	123 °F (50.6 °C) estimated
Flash point	< 0 °F (< -17.8 °C) Tag Closed Cup
Evaporation rate	Very fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.9 % estimated
Flammability limit - upper (%)	12 % estimated
Vapor pressure	2089.5 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.72 estimated
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	489.2 °F (254 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	99.2 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.
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Components	Species	Test Results
2,2,4-trimethylpentane (CAS 540-84-1)		
Acute		
Inhalation		
LC50	Rat	118 mg/l, 4 Hours
isopropyl alcohol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	13900 mg/kg
Inhalation		
LC50	Rat	16000 ppm, 4 hours
Oral		
LD50	Rat	4700 mg/kg
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
n-hexane (CAS 110-54-3)		
Acute		
Dermal		
LD50	Rabbit	> 1300 mg/kg
Oral		
LD50	Rat	15840 mg/kg
n-pentane (CAS 109-66-0)		
Acute		
Inhalation		
<i>Vapor</i>		
LC50	Rat	364 mg/m3, 4 Hours
Oral		
LD50	Rat	> 2000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	Suspected of damaging fertility.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
2-methylpentane (CAS 107-83-5)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
isopropyl alcohol (CAS 67-63-0)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	7550 - 13299 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	9640 mg/l, 96 hours
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
n-hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

1,1-difluoroethane	0.75
2,2,4-trimethylpentane	5.18
2,2-dimethylbutane	3.82
2,3-dimethylbutane	3.42
2-methylpentane	3.74
3-methylpentane	3.6
isopropyl alcohol	0.05
n-hexane	3.9
n-pentane	3.39

Bioconcentration factor (BCF)

isopropyl alcohol	3.16
naphtha (petroleum), hydrotreated light	10 - 25000

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

n-hexane (CAS 110-54-3)

CERCLA Hazardous Substance List (40 CFR 302.4)

2,2,4-trimethylpentane (CAS 540-84-1)	Listed.
n-hexane (CAS 110-54-3)	Listed.
n-pentane (CAS 109-66-0)	Listed.

CERCLA Hazardous Substances: Reportable quantity

2,2,4-trimethylpentane (CAS 540-84-1)	1000 LBS
n-hexane (CAS 110-54-3)	5000 LBS
n-pentane (CAS 109-66-0)	100 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

2,2,4-trimethylpentane (CAS 540-84-1)
n-hexane (CAS 110-54-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

1,1-difluoroethane (CAS 75-37-6)
n-pentane (CAS 109-66-0)

Safe Drinking Water Act (SDWA) Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

isopropyl alcohol (CAS 67-63-0) Low priority

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Immediate Hazard - Yes
Hazard categories Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2,2,4-trimethylpentane (CAS 540-84-1)
isopropyl alcohol (CAS 67-63-0)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)
n-pentane (CAS 109-66-0)

US. New Jersey Worker and Community Right-to-Know Act

1,1-difluoroethane (CAS 75-37-6)
2,2,4-trimethylpentane (CAS 540-84-1)
2,2-dimethylbutane (CAS 75-83-2)
2,3-dimethylbutane (CAS 79-29-8)
2-methylpentane (CAS 107-83-5)
isopropyl alcohol (CAS 67-63-0)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)
n-pentane (CAS 109-66-0)

US. Massachusetts RTK - Substance List

1,1-difluoroethane (CAS 75-37-6)
2,2,4-trimethylpentane (CAS 540-84-1)
2,2-dimethylbutane (CAS 75-83-2)
2,3-dimethylbutane (CAS 79-29-8)
2-methylpentane (CAS 107-83-5)
3-methylpentane (CAS 96-14-0)
isopropyl alcohol (CAS 67-63-0)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)
n-pentane (CAS 109-66-0)

US. Pennsylvania Worker and Community Right-to-Know Law

2,2,4-trimethylpentane (CAS 540-84-1)
2,2-dimethylbutane (CAS 75-83-2)
2,3-dimethylbutane (CAS 79-29-8)
2-methylpentane (CAS 107-83-5)
3-methylpentane (CAS 96-14-0)
isopropyl alcohol (CAS 67-63-0)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)
n-pentane (CAS 109-66-0)

US. Rhode Island RTK

2,2,4-trimethylpentane (CAS 540-84-1)
 naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
 n-hexane (CAS 110-54-3)
 n-pentane (CAS 109-66-0)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Volatile organic compounds (VOC) regulations**EPA**

VOC content (40 CFR 51.100(s)) 74.3 %
Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as an Electronic Cleaner. This product is compliant for use in all 50 states.
VOC content (CA) 74.3 %
VOC content (OTC) 74.3 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 09-29-2014
Revision date 08-01-2017
Prepared by Allison Yoon
Version # 03
Further information CRC # 957/1002975
HMIS® ratings Health: 1*
 Flammability: 4
 Physical hazard: 0
 Personal protection: B
NFPA ratings Health: 1
 Flammability: 4
 Instability: 0

NFPA ratings

Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision Information

This document has undergone significant changes and should be reviewed in its entirety.

SAFETY DATA SHEET

RESOLVE® Oxi-Action™ Pre-Treat Laundry Stain Remover



HEALTH • HYGIENE • HOME

1. Product and company identification

Product name : RESOLVE® Oxi-Action™ Pre-Treat Laundry Stain Remover

Distributed by : Reckitt Benckiser LLC.
 Morris Corporate Center IV
 399 Interpace Parkway (P.O. Box 225)
 Parsippany, New Jersey 07054-0225
 +1 973 404 2600

Reckitt Benckiser (Canada) Inc.
 1680 Tech Avenue, Unit #2
 Mississauga, Ontario L4W 5S9
 CANADA
 Telephone: +1 905 283 7000

Emergency telephone number (Medical) : 1-800-338-6167

Emergency telephone number (Transport) : 1-800-424-9300 (U.S. & Canada) CHEMTREC
 Outside U.S. and Canada (North America), call Chemtrec:703-527-3887

Website: : <http://www.rbnainfo.com>

Product use : Pre-wash laundry additive spray

This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure, in accordance with the requirements of USDOL Occupational Safety and Health Administration.

This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations, and shown in Section 15 of this SDS.

SDS # : D0132083 v8.0

Formulation #: : 0129047 v4.0

2. Hazards identification

Classification of the substance or mixture : SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms :



Signal word : Warning

Code # : D0132083 (NA)

SDS # : D0132083 v8.0

Date of issue : 12/05/2017

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2. Hazards identification

Hazard statements	: Causes serious eye irritation. Causes skin irritation.
Precautionary statements	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling.
Response	: IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	: Not applicable.
Disposal	: Not applicable.
Supplemental label elements	: None known.
Hazards not otherwise classified	: None known.

3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Alcohols, C12-16, ethoxylated	2.5 - 5	68551-12-2
hydrogen peroxide	2.5 - 5	7722-84-1
Alcohols, C12-16, ethoxylated	1 - 2.5	68551-12-2
sodium cumenesulphonate	1 - 2.5	28348-53-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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4. First aid measures

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

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5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 sulfur oxides
 metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Control

Occupational exposure limits

Ingredient name	Exposure limits
hydrogen peroxide	<p>ACGIH TLV (United States, 3/2015). TWA: 1 ppm 8 hours. TWA: 1.4 mg/m³ 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 1 ppm 8 hours. TWA: 1.4 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2013). TWA: 1 ppm 10 hours. TWA: 1.4 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 1 ppm 8 hours. TWA: 1.4 mg/m³ 8 hours.</p>

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eyeface protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Clear.
- Odor** : Fragrant.
- Odor threshold** : Not available.
- pH** : 3 to 4
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: >93.3°C (>199.9°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.005 to 1.015
- Solubility** : Easily soluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): 100 mPa·s (100 cP)
- Flow time (ISO 2431)** : Not available.

10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
hydrogen peroxide	LD50 Oral	Rat - Male, Female	805 mg/kg (70% H2O2 w/w)	-
Alcohols, C12-16, ethoxylated	LD50 Oral	Rat	500 to 2000 mg/ kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Alcohols, C12-16, ethoxylated	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
hydrogen peroxide	Eyes - Severe irritant	Rabbit	-	1 milligrams	-
Alcohols, C12-16, ethoxylated	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-

Conclusion/Summary

Skin : Based on Calculation method: Causes skin irritation.
Eyes : Based on Calculation method: Causes serious eye irritation.
Respiratory : Based on available data, the classification criteria are not met.

Sensitization

Not available.

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.
Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Classification

Product/ingredient name	OSHA	IARC	NTP
hydrogen peroxide	-	3	-

Reproductive toxicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

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11. Toxicological information

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
irritation
redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Code # : D0132083 (NA) SDS # : D0132083 v8.0 Date of issue : 12/05/2017

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11. Toxicological information

Not available.

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
hydrogen peroxide	Acute EC50 1.2 mg/l Marine water	Algae - Dunaliella tertiolecta - Exponential growth phase	72 hours
	Acute EC50 5.38 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2320 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 93 ppm Fresh water Chronic NOEC 989.7 ppm Fresh water	Fish - Oncorhynchus mykiss Fish - Oncorhynchus tshawytscha - Egg	96 hours 43 days

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
hydrogen peroxide	-1.36	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not Regulated	Not applicable.	Not available.	-		-
TDG Classification	Not Regulated	Not applicable.	Not available.	-		-
Mexico Classification	Not Regulated	Not applicable.	Not available.	-		-
IMDG Class	Not Regulated	Not applicable.	Not available.	-		-
IATA-DGR Class	Not Regulated	Not applicable.	Not available.	-		-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

PG* : Packing group

15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
United States inventory (TSCA 8b): Not determined.
Clean Water Act (CWA) 311: sodium hydroxide

Clean Air Act Section 112 : Not listed
(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

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15. Regulatory information

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
hydrogen peroxide	2.5 - 5	Yes.	1000	106.1	1000	106.1

SARA 304 RQ : 28571.4 lbs / 12971.4 kg [3392.8 gal / 12843 L]

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Alcohols, C12-16, ethoxylated	2.5 - 5	No.	No.	No.	Yes.	No.
hydrogen peroxide	2.5 - 5	No.	No.	No.	Yes.	No.
Alcohols, C12-16, ethoxylated	1 - 2.5	No.	No.	No.	Yes.	No.

State regulations

- Massachusetts** : The following components are listed: HYDROGEN PEROXIDE
- New York** : The following components are listed: Hydrogen peroxide
- New Jersey** : The following components are listed: HYDROGEN PEROXIDE
- Pennsylvania** : The following components are listed: HYDROGEN PEROXIDE

Canada

- WHMIS (Canada)** : Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class E: Corrosive material

Canadian lists

- Canadian NPRI** : None of the components are listed.
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory** : Not determined.

Label elements

- Signal word** : WARNING
- Hazard statements** : CAUSES EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED.
- Precautionary measures** : Keep out of the reach of children. Do not get in eyes. Do not get on skin. Do not ingest. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
- Additional information** : Short term Skin Bleaching agent. IF ON SKIN: Rinse skin with water.

16. Other information

Hazardous Material Information System (U.S.A.) :

Health	2
Flammability	1
Physical hazards	0
Personal protection	B

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16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

Date of issue : 12/05/2017
Date of previous issue : 12/10/2014
Version : 8
Prepared by : Reckitt Benckiser India Ltd
 Plot No 48
 Sector - 32
 Institutional Area
 Gurgaon, Haryana
 India - 122001

Revision comments : Update as per Canadian GHS

Indicates information that has changed from previously issued version.

Notice to reader

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16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



RB is a member of the CSPA Product Care Product Stewardship Program.



Northland Rodaka 315

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 11/21/2013

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Substance
Trade name : Rodaka 315
Product code : 40R6
Other means of identification : Lubricant

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Lubricant

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Northland Rodaka 315

Full text of H-phrases: see section 16

3.2. Mixture

This product does not contain any substance presented in above cut-off concentration limits that classified as hazardous in accordance with paragraph (d) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.

Northland Rodaka 315

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

Symptoms/injuries after inhalation : In the event of insufficient ventilation: May produce an allergic reaction.

Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.

Symptoms/injuries after eye contact : Oil Mist. May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.

Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product.

Northland Rodaka 315

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

- Precautions for safe handling : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed.
- Incompatible materials : Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Protect against direct sunlight.
- Special rules on packaging : Correctly labelled.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.



- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Chemical goggles or safety glasses. with side-shields.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection.
- Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Clear to light amber.
- odour : Petroleum. characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : > 325 °C (617 °F)
- Flash point : 227 °C (440 °F)
- Self ignition temperature : No data available
- Decomposition temperature : No data available

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Vapour pressure	: < 0.01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.878 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 67 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: May produce an allergic reaction.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Oil Mist. May cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.
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12.2. Persistence and degradability

Northland Rodaka 315	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Rodaka 315	
Log Pow	Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Additional information : Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

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15.2.2. National regulations

No additional information available

15.3 US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012)

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SECTION 1: Identification

1.1. Product identifier

3M™ Rubbing Compound, 05973, 05974, 05968, 3900, 39002, 39002S, 39005

Product Identification Numbers

ID Number	UPC	ID Number	UPC
LB-K100-0959-1		LB-K100-0959-2	
LB-K100-0961-4		LB-K100-0960-9	00051131039001
LB-K100-0954-8	00051131059689	LB-K100-0933-1	00051131059733
LB-K100-0933-2	00051131059740	LB-K100-0961-0	00051131390027
LB-K100-0961-1	00051131390058	60-4550-5785-5	00051131059733
60-4550-5787-1	00051131059740	60-4550-5806-9	
60-4550-6559-3	00051131390027	60-4550-7122-9	00051131390058
60-4551-0213-1	00051131039001	60-4551-0214-9	00051131390027
60-4551-0215-6	00051131390027	60-4551-0216-4	00051131390058

7000120042, 7000021276, 7000120073, 7100159911, 7100168978, 7100169724, 7100177111

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Rubbing Compound

1.3. Supplier's details

MANUFACTURER: 3M
DIVISION: Automotive Aftermarket
ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification

Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements**Signal word**

Danger

Symbols

Health Hazard |

Pictograms**Hazard Statements**

Causes damage to organs through prolonged or repeated exposure:
respiratory system |

Precautionary Statements**General:**

Keep out of reach of children.

Prevention:

Do not breathe dust/fume/gas/mist/vapors/spray.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:

Get medical advice/attention if you feel unwell.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

1% of the mixture consists of ingredients of unknown acute oral toxicity.

2% of the mixture consists of ingredients of unknown acute inhalation toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	30 - 60 Trade Secret *
Silica	7631-86-9	15 - 40 Trade Secret *
Hydrotreated Light Petroleum Distillates	64742-47-8	10 - 30 Trade Secret *
Kaolinite	1318-74-7	3 - 7 Trade Secret *
Solvent Dewaxed Heavy Paraffinic Distillate (Petroleum)	64742-65-0	1 - 5 Trade Secret *
Glycerin	56-81-5	< 2 Trade Secret *
Oleic Acid	112-80-1	< 2 Trade Secret *
Illite	12173-60-3	0.5 - 1.5 Trade Secret *
Hydrotreated Light Paraffinic Distillates (Petroleum)	64742-55-8	< 1 Trade Secret *
Poly(Oxyethylene)Sorbitan Monostearate	9005-67-8	0.1 - 1 Trade Secret *
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	64742-56-9	< 1 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade

secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Non-combustible. Use a fire fighting agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment.

7.2. Conditions for safe storage including any incompatibilities

Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Aluminum, insoluble compounds	1318-74-7	ACGIH	TWA(respirable fraction):1 mg/m ³	A4: Not class. as human carcin
Glycerin	56-81-5	OSHA	TWA(as total dust):15 mg/m ³ ;TWA(respirable fraction):5 mg/m ³	
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m ³	A3: Confirmed animal carcin., SKIN
Mineral oils (untreated and mildly treated)	64742-55-8	ACGIH	Limit value not established:	A2: Suspected human carcin., Cntrl all exposr-low as possib
Paraffin oil	64742-55-8	OSHA	TWA(as mist):5 mg/m ³	
Mineral oils (untreated and mildly treated)	64742-56-9	ACGIH	Limit value not established:	A2: Suspected human carcin., Cntrl all exposr-low as possib
MINERAL OILS, HIGHLY-REFINED OILS	64742-56-9	ACGIH	TWA(inhalable fraction):5 mg/m ³	A4: Not class. as human carcin
Paraffin oil	64742-56-9	OSHA	TWA(as mist):5 mg/m ³	
Paraffin oil	64742-65-0	OSHA	TWA(as mist):5 mg/m ³	
PETROLEUM DISTILLATES	64742-65-0	OSHA	TWA:2000 mg/m ³ (500 ppm)	
SILICA, AMORPHOUS	7631-86-9	OSHA	TWA:20 millions of particles/cu. ft.;TWA concentration:0.8 mg/m ³	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety Glasses with side shields

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions.

Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

When only incidental contact is anticipated, alternative glove material(s) may be used. If contact with the glove does occur, remove immediately and replace with a set of new gloves. For incidental contact, gloves made of the following material(s) may be used: Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

Physical state

Liquid

Color

Tan

Odor

Slight Solvent

Odor threshold

No Data Available

pH

7.5 - 8.5

Melting point

Not Applicable

Boiling Point

98.3 °C

Flash Point

No flash point

Evaporation rate

No Data Available

Flammability (solid, gas)

Not Applicable

Flammable Limits(LEL)

No Data Available

Flammable Limits(UEL)

No Data Available

Vapor Pressure

No Data Available

Vapor Density

No Data Available

Density

1.2 g/ml

Specific Gravity

1.2 [Ref Std: WATER=1]

Solubility in Water

Negligible

Solubility- non-water

No Data Available

Partition coefficient: n-octanol/ water

No Data Available

Autoignition temperature

No Data Available

Decomposition temperature

No Data Available

Viscosity

6,000 - 18,000 centipoise [Test Method: Brookfield] [Details: #6]

Hazardous Air Pollutants	Spindle]
Molecular weight	0.00002 lb HAPS/lb solids [<i>Test Method</i> : Calculated]
Volatile Organic Compounds	<i>No Data Available</i>
Volatile Organic Compounds	213 g/l [<i>Test Method</i> : calculated SCAQMD rule 443.1]
Percent volatile	15.2 % weight [<i>Test Method</i> : calculated per CARB title 2]
VOC Less H2O & Exempt Solvents	58.3 % weight
	415 g/l [<i>Test Method</i> : calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

Sparks and/or flames

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	At Elevated Temperatures
Carbon dioxide	At Elevated Temperatures

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

May cause additional health effects (see below).

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:

Dust created by cutting, grinding, sanding, or machining may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Additional Health Effects:**Prolonged or repeated exposure may cause target organ effects:**

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

Carcinogenicity:

Ingredient	CAS No.	Class Description	Regulation
Generic: Mineral oils (untreated and mildly treated)	64742-55-8	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Generic: Mineral oils (untreated and mildly treated)	64742-55-8	Known human carcinogen	National Toxicology Program Carcinogens
Generic: Mineral oils (untreated and mildly treated)	64742-56-9	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Generic: Mineral oils (untreated and mildly treated)	64742-56-9	Known human carcinogen	National Toxicology Program Carcinogens

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Hydrotreated Light Petroleum Distillates	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydrotreated Light Petroleum Distillates	Inhalation-Vapor (4 hours)	Rat	LC50 > 12 mg/l
Hydrotreated Light Petroleum Distillates	Ingestion	Rat	LD50 > 5,000 mg/kg
Kaolinite	Dermal		LD50 estimated to be > 5,000 mg/kg
Kaolinite	Ingestion	Human	LD50 > 15,000 mg/kg
Solvent Dewaxed Heavy Paraffinic Distillate (Petroleum)	Dermal	Rabbit	LD50 > 5,000 mg/kg
Solvent Dewaxed Heavy Paraffinic Distillate (Petroleum)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 4 mg/l
Solvent Dewaxed Heavy Paraffinic Distillate (Petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg
Oleic Acid	Dermal	Guinea pig	LD50 > 3,000 mg/kg
Oleic Acid	Ingestion	Rat	LD50 57,000 mg/kg
Glycerin	Dermal	Rabbit	LD50 estimated to be > 5,000 mg/kg
Glycerin	Ingestion	Rat	LD50 > 5,000 mg/kg
Poly(Oxyethylene)Sorbitan Monostearate	Dermal		LD50 estimated to be > 5,000 mg/kg
Poly(Oxyethylene)Sorbitan Monostearate	Ingestion	Rat	LD50 > 62,640 mg/kg
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Dermal	Rabbit	LD50 > 5,000 mg/kg
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 4 mg/l
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Silica	Rabbit	No significant irritation
Hydrotreated Light Petroleum Distillates	Rabbit	Mild irritant
Kaolinite	Professional judgement	No significant irritation
Oleic Acid	Rabbit	Minimal irritation
Glycerin	Rabbit	No significant irritation
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Silica	Rabbit	No significant irritation
Hydrotreated Light Petroleum Distillates	Rabbit	Mild irritant
Kaolinite	Professional judgement	No significant irritation
Oleic Acid	Rabbit	Mild irritant
Glycerin	Rabbit	No significant irritation
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Silica	Human and animal	Not classified
Hydrotreated Light Petroleum Distillates	Guinea pig	Not classified
Glycerin	Guinea pig	Not classified
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Guinea pig	Not classified

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Silica	In Vitro	Not mutagenic
Oleic Acid	In Vitro	Some positive data exist, but the data are not sufficient for classification
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	In vivo	Not mutagenic
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Silica	Not Specified	Mouse	Some positive data exist, but the data are not sufficient for classification
Kaolinite	Inhalation	Multiple animal species	Not carcinogenic
Oleic Acid	Dermal	Mouse	Not carcinogenic
Oleic Acid	Ingestion	Rat	Not carcinogenic
Oleic Acid	Not Specified	Multiple animal	Not carcinogenic

		species	
Glycerin	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Glycerin	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerin	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	2 generation
Glycerin	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

For the component/components, either no data are currently available or the data are not sufficient for classification.

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Kaolinite	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL NA	occupational exposure
Kaolinite	Inhalation	pulmonary fibrosis	Not classified	Rat	NOAEL Not available	
Oleic Acid	Ingestion	liver immune system	Not classified	Rat	NOAEL 2,250 mg/kg/day	108 weeks
Oleic Acid	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 2,550 mg/kg/day	108 weeks
Glycerin	Inhalation	respiratory system heart liver kidney and/or bladder	Not classified	Rat	NOAEL 3.91 mg/l	14 days
Glycerin	Ingestion	endocrine system hematopoietic system liver kidney and/or bladder	Not classified	Rat	NOAEL 10,000 mg/kg/day	2 years
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Dermal	hematopoietic system liver kidney and/or bladder	Not classified	Rabbit	NOAEL 5,000 mg/kg/day	3 weeks

Aspiration Hazard

Name	Value
Hydrotreated Light Petroleum Distillates	Aspiration hazard
Solvent Dewaxed Light Paraffinic Distillates (Petroleum)	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Not applicable

Health Hazards

Specific target organ toxicity (single or repeated exposure)

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 1 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Document Group:	29-3593-0	Version Number:	5.02
Issue Date:	06/14/21	Supersedes Date:	08/22/19

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MATERIAL SAFETY DATA SHEET

LPS 3[®] Premier Rust Inhibitor Bulk

Revision 4

Revision Date: 9/26/08

Supersedes:3/19/07

Section 1 – Identification

Product Name: LPS 3[®] Premier Rust Inhibitor

Part Number: 00322,03128,00305,00355, C00322,C03128,C00305,C00355

Chemical Name: Petroleum Hydrocarbons

Product Use: A specialized soft-film coating designed to prevent rust and corrosion on steel, aluminum and other metals.

Manufacturer Information: LPS Laboratories, 4647 Hugh Howell Rd., Tucker, GA, USA 30084

TEL: 1 770-243-8800

Emergency Telephone Number: 1-800-424-9300 Chemtrec;
Outside U.S.: (703) 527-3887

FAX: 1 770-243-8899

Website: <http://www.lpslabs.com>

PLAIN LANGUAGE HAZARD SUMMARY

Material Safety Data Sheets can be confusing. Federal and State laws require us to include a great deal of technical information that probably won't help the non-professional. LPS includes this "PLAIN LANGUAGE HAZARD SUMMARY" to address the questions and concerns of the average worker. If you have additional health, safety or product questions, don't hesitate to call us at 800/241-8334.

Worker Toxicity

LPS 3[®] is an industrial chemical. It is a specialized soft-film coating designed to prevent rust and corrosion on steel, aluminum and other metals. It contains "rule 66/3 mineral spirits" and mineral oil which can be irritating to skin at a minimum and if handled improperly can be dangerous. We suggest you wear gloves and avoid extended exposure to unprotected skin. Don't get it in your eyes (it stings), or breath large amounts of the vapor, (it will dry out your nasal passages and if you breathe large amounts in poorly ventilated areas it can make you dizzy and even sick). Don't spray LPS 3[®] for extended periods without adequate ventilation. If you're going to perform work involving a lot of product in a poorly ventilated area, use of a respirator or self-contained breathing equipment may be required. For more exposure and first aid information, refer to MSDS Sections 2, 8 and 11.

Flammability

LPS 3[®] is flammable, having a flash point below 70oF. Under normal use conditions flammability isn't a concern, but don't spray the product near or around ignition sources.

Disposal

If you spill LPS 3, notify the proper environmental or safety department at your company right away. If LPS 3 becomes contaminated with another substance and is rendered unusable for protecting metal items from rust, the resulting mixture may fall under a hazardous classification. See section 13 for more details.



MATERIAL SAFETY DATA SHEET

LPS 3® Premier Rust Inhibitor Bulk

Revision 4

Revision Date: 9/26/08

Supersedes:3/19/07

Section 2 – Hazards identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Emergency Overview: DANGER: Combustible. Harmful or fatal if swallowed.

Primary route(s) of entry: Skin and Eye contact. Inhalation.

Potential Acute Health Effects:

Eyes: Irritating to eyes

Skin: Repeated exposure may cause skin dryness or cracking.

Inhalation: Excessive inhalation of vapors can cause irritation of the respiratory tract, nausea, dizziness or headache. In extreme cases (overexposure in a confined space for example), the vapors of the solvent portion can cause disorientation, difficulty with breathing, unconsciousness, coma and even death depending upon the level of overexposure and duration. 20,000 ppm of the solvent portion of this product in air can cause death to humans in 5 to 10 minutes.

Ingestion: Product has a low order of acute oral toxicity, but ingestion of large quantities will cause central nervous system depression and gastrointestinal irritation. Symptoms include a burning sensation to the mouth and esophagus, nausea, vomiting, dizziness, staggering gait, drowsiness, loss of consciousness, and other central nervous system effects. May cause injury if aspirated into lungs.

Potential Chronic Health Effects:

Carcinogenic Effects: NTP: No OSHA: No ACGIH: No

Mutagenic Effects: None

Teratogenic Effects: None

Medical conditions aggravated by exposure:

Persons with pre-existing central nervous system (CNS) disease, neurological conditions, skin disorders, chronic respiratory diseases, or impaired liver or kidney function should avoid exposure.

Signs and Symptoms:

Stinging in eyes. Repeated or prolonged skin contact can cause redness, irritation, and scaling of the skin (dermatitis). Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, and kidney effects.

Section 3 – Composition / Information on Ingredients

Component	CASRN	Weight Percent
Aliphatic Hydrocarbon	64742-47-8	60 - 70%
Distillates Petroleum Hydrotreated Heavy Paraffinic	64742-54-7	5 - 10%
Light Mineral Spirits	64742-88-7	5 - 10%

*The remaining ingredients of this preparation are not classified as hazardous per 29 CFR 1920.1200 Subpart Z



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Section 4 – First Aid Measures

- Eyes:** Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.
- Skin:** Remove contaminated shoes and clothing. Clean affected area thoroughly with mild soap and water. Do not use ointments. Seek medical attention if irritation persists.
- Inhalation:** Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, seek medical attention immediately.
- Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended. Seek medical attention immediately.

Section 5 – Fire Fighting Measures

Products of Combustion: Carbon monoxide and carbon dioxide.

Firefighting media: SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Cool containing vessels with water jet in order to prevent pressure build-up, auto ignition or explosions.

Sensitivity to Impact: None. **Sensitivity to Static Discharge:** None.

Protection Clothing (Fire): wear protective clothing and equipment suitable for the surrounding fire, including helmet, face mask, and self-contained breathing apparatus.

Special Remarks on Explosion Hazards: High heat will cause product to boil, evolving vapor that could cause explosive rupture of closed containers.

Section 6 – Accidental Release Measures

- Containment Procedures** Contain and recover spilled liquid when possible.
- Clean-Up Procedures**
- Small Spill and Leak:** Absorb with an inert material and dispose of properly.
- Large Spill and Leak:** Secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Pick up free liquid for disposal using absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal.
- Evacuation Procedures** Ventilate area of leak or spill. Keep unnecessary and unprotected people away.
- Special Procedures** Remove all sources of ignition. Ventilate area. Wear appropriate protective equipment during cleanup.



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LPS 3® Premier Rust Inhibitor Bulk

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Section 7 – Handling and Storage

Handling: Eliminate ignition sources. All equipment used when handling this material must be grounded when fluid temperature exceeds 100°F. Avoid contact with eyes, skin and clothing. After handling, always wash hands thoroughly with soap and water. Use only with adequate ventilation. Avoid breathing vapors or spray mists

Storage: Keep container in a cool, well-ventilated area. Avoid all sources of ignition (spark or flame). Store below 120°F.

Precautions to be taken in handling and storage: Store all materials in dry, well-ventilated area. Avoid breathing vapors.

Section 8 – Exposure Controls / Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA TWA-PEL	OSHA STEL	ACGIH-TLV	ACGIH-STEEL	NIOSH REL
Aliphatic Hydrocarbon	64742-47-8	500 ppm	Not Established	100 ppm	Not Established	Not Established
Distillates Petroleum Hydrotreated Heavy Paraffinic	64742-54-7	Not Established	Not Established	Not Established	Not Established	Not Established
Light Mineral Spirits	64742-88-7	500 ppm 2900 mg/m ³	Not Established	100 ppm 525 mg/m ³	Not Established	350 mg/m ³ 10-hr TWA 1800 mg/m ³ 15-min Ceiling

* Supplier Recommendation

Engineering measures Provide general and/or local exhaust ventilation to keep exposures below the exposure guidelines listed above.

Personal protective equipment

Eye protection Safety glasses with side shields conforming to appropriate regulations. Eye wash fountain and emergency shower facilities are recommended.

Hand protection Normally no hand protection is required; however, if product will be sprayed for an extended period, "overspray" onto skin may occur. If so, use chemical resistant gloves (i.e., nitrile, neoprene, buna) conforming to appropriate regulations. Please observe the instructions regarding permeability and breakthrough time that are provided by the supplier of the gloves.

Respiratory protection Typical use of this product under normal conditions does not require the use of respiratory protection. If airborne concentrations are above the applicable exposure limits (listed above), use NIOSH approved respiratory protection (i.e., organic vapor cartridge).

General Hygiene Considerations Wash thoroughly after handling. Have eye-wash facilities immediately available.



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Section 9 – Physical and Chemical Properties

Appearance:	Liquid.	Color:	Medium to Dark Brown
Odor/Taste:	Cherry	Vapor Pressure:	2.6 mmHg @ 20 °C
Solubility Description:	<0.1 %	Evaporation Rate:	0.2 (BuAc=1)
Boiling Point:	160°C (320°F)	Flash Point:	40°C-45°C (100°F- 113°F)
Specific Gravity (Water=1):	0.82-0.86	Flash Point Method:	Tag-Closed Cup.
Vapour Density (air=1):	4.8	Auto Ignition Temperature (°C):	Not Established
V.O.C. Content:	74.3%, 603g/L, 5 #/gal. per CARB Regulation	Partition Coefficient (octanol/water):	Not Established
Flammable limits (estimated):	LOWER: 0.6% UPPER: 7%	Viscosity:	200 – 600 cps @ 25°C
pH:	Not applicable	Odor threshold	Not Determined
Melting Point	Not Established	Volatiles:	70 - 75%
Decomposition Temperature	Not Established		

Section 10 – Chemical Stability and Reactivity

Chemical Stability:	Product is stable under recommended storage conditions.
Conditions to Avoid:	Keep away from heat and ignition sources.
Incompatibility:	Reactive or incompatible with oxidizing agents.
Hazardous Decomposition:	Combustion will generate smoke, possibly thick and choking, resulting in zero visibility and combustion products include carbon monoxide and carbon dioxide.
Hazardous Polymerization:	Will not occur.

Section 11 – Toxicological Information

A: General Product Information

An acute toxicity study of this product has not been conducted. Information given in this section relates only to individual constituents contained in this preparation.

B: Component Analysis

Component	CASRN	LC-50	LD-50
Aliphatic Hydrocarbon	64742-47-8	21400 mg/m ³ /rat/4H	34600 mg/kg/oral/rat 15400 mg/kg/dermal/rabbit
Distillates Petroleum Hydrotreated Heavy Paraffinic	64742-54-7	Not established	>5 g/kg oral/rat* >5 g/kg dermal/rabbit/24H*
Light Mineral Spirits	64742-88-7	Not established	Not established



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Section 12 – Ecological Information

Mobility: Semi-volatile. Readily absorbed into soil. **Persistence and degradability:** Only slightly biodegradable.

Bioaccumulative potential: No bioaccumulation potential. **Other adverse effects:** See below.

Ecotoxicology:

Effect on Organisms	Component	CASRN	Test	Species	Results
Acute Toxicity on Fishes	Aliphatic Hydrocarbon	64742-47-8	96-hr LC ₅₀	Oncorhynchus mykiss	3200 ug/L
Acute Toxicity on Daphnia	No Data Available				
Bacterial inhibition					
Growth inhibition of algae					
Bioaccumulation in fish					

For the 64742-47-8 component, no toxicity has been observed in water due to extremely low water solubility. However, hydrocarbon and petroleum distillates are potentially toxic to freshwater and saltwater ecosystems. If material is spilled on soil, some potential toxic effects could occur before biodegradation could remove material.

If spilled, the 64742-54-7 constituent may kill grasses and small plants by interfering with transpiration. Spilled material may coat gill structures of fish resulting in suffocation if spilled in shallow, running water. This product may be toxic to amphibians by preventing dermal respiration. This product may also cause gastrointestinal distress to birds and mammals through ingestion.

Section 13 – Disposal Considerations

Waste Status: This item carries waste code D001. (U.S.)

Disposal: Waste must be disposed of in accordance with national, regional and local environmental control regulations.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information inaccurate, incomplete, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive than federal laws and regulations.



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Section 14 – Transportation Information

Bulk

D.O.T. Ground	Shipping Name:	Not Regulated	UN Number:	NA
	Hazard Class:	NA	Technical Name:	NA
	Subclass:	NA	Hazard Label:	NA
Road/Rail - ADR/RID	UN no:	1268	ADR Class:	3
	Packing group:	III	Classification code:	F1
	Name and Description:	Petroleum Distillates, n.o.s. mixture	Hazard ID no:	30
	Labeling:	3	Technical Name:	NA
IMDG-IMO	UN no:	1268	Class:	3
	Shipping Name:	Petroleum Distillates, n.o.s. mixture	Subsidiary Risk:	NA
	Packing Instructions:	P001, LP01	Packing group:	III
	Marine pollutant:	NO	EmS:	F-E, S-E
IATA-ICAO	UN no:	1268	Class:	3
	Shipping Name:	Petroleum Distillates, n.o.s. mixture	Subclass	NA
	Packing instructions:	309, Y309 (Ltd. Qty.)	Packing group:	III
	Labeling:	Flammable Liquid		

NOTE

1-gallon containers of this product must be repacked according to IATA regulations for air shipment.

Section 15 – Regulatory Information

U.S. Federal Regulations

RCRA Hazardous Waste No.: D001

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): None

Toxic Substances Control Act (TSCA):

All components of this product are TSCA inventory listed and/or are exempt.

Superfund Amendments and Reauthorization Act (SARA) Title III

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): No individual section 313 component is present at or above 1%

Section 112 Hazardous Air Pollutants (HAPs): None



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State Regulations

New Jersey RTK:

Bulk: Aliphatic Hydrocarbon 64742-47-8 • Hydrotreated Microcrystalline wax 64742-60-5 • Light Mineral Spirits 64742-88-7 • Distillates Petroleum Hydrotreated Heavy 64742-54-7 • Calcium Carbonate 471-34-1

California: This product does not contain chemical(s) known to the State of California to cause cancer, birth defects or reproductive harm.

California and OTC States: This product conforms to consumer regulations.

International Regulations

Canadian Environmental Protection Act: All of the components of this product are included on the Canadian Domestic Substances list (DSL).

Canadian Workplace Hazardous Materials Information System (WHMIS):

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.


WHMIS Classification: Bulk
Class B3, Class D2B



Other Regulations

Montreal Protocol listed ingredients: None.
Stockholm Convention listed ingredients: None.
Rotterdam Convention listed ingredients: None.
RoHS Compliant: Yes.

Section 16 • Other Information

MSDS# 10322 Responsible Name: Clea Johnson Regulatory Affairs Coordinator	HMIS 1996		HMIS III		NFPA Flammability  Health Reactivity
	Health:	1	Health:	[/]1	
	Flammability:	2	Flammability:	2	
	Reactivity	0	Physical Hazard: bulk	0	

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Clea Johnson, Regulatory Affairs Coordinator
LPS Laboratories, A division of Illinois Tool Works



SAFETY DATA SHEET

1. Identification

Product identifier Screwloose® Super Penetrant - 11 oz

Other means of identification

Product Code No. 03060 (Item# 1003322)

Recommended use General purpose penetrant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.
Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300
Technical Assistance 800-521-3168
Customer Service 800-272-4620
24-Hour Emergency (CHEMTREC) 800-424-9300 (US)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Compressed gas
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 4
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights, and heaters. Vapors will accumulate readily and may ignite. Use only outdoors or in a well-ventilated area. Maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist/vapors. Wash thoroughly after handling. Wear eye protection/face protection. Wear protective gloves.

Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Storage	Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
distillates (petroleum), hydrotreated light		64742-47-8	70 - 80
naphtha (petroleum), hydrotreated heavy		64742-48-9	10 - 20
paraffin oils (petroleum), catalytic dewaxed heavy		64742-70-7	3 - 5
carbon dioxide		124-38-9	1 - 3
distillates (petroleum), hydrotreated heavy paraffinic		64742-54-7	1 - 3
oleic acid		112-80-1	1 - 3
paraffin oils (petroleum), catalytic dewaxed light		64742-71-8	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame. Pressurized container may rupture when exposed to heat or flame. Will burn if involved in a fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA

Components	Type	Value
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m3	
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	PEL	5000 ppm 5 mg/m3	Mist.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	PEL	5 mg/m3	Mist.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	PEL	5 mg/m3	Mist.

ACGIH

Components	Type	Value	Form
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Inhalable fraction

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm	
	TWA	5000 ppm	
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Inhalable fraction.
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	TWA	5 mg/m3	Inhalable fraction.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	TWA	5 mg/m3	Inhalable fraction.

U.S. - NIOSH

Components	Type	Value	Form
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	10 mg/m3	Mist
	TWA	5 mg/m3	Mist

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3	
		30000 ppm	
	TWA	9000 mg/m3	
		5000 ppm	
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	100 mg/m3	
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear protective gloves such as: Nitrile. Neoprene.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Aerosol.
Color	Light amber.
Odor	Petroleum.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-121 °F (-85 °C) estimated
Initial boiling point and boiling range	300.2 °F (149 °C) estimated
Flash point	141.0 °F (60.6 °C) Setflash
Evaporation rate	Slow.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.6 % estimated
Flammability limit - upper (%)	8.3 % estimated
Vapor pressure	Not available.
Vapor density	> 4 (air = 1)
Relative density	0.81 estimated
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	401 °F (205 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	77.3 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.

Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Aldehydes. Carbon oxides. Nitrogen oxides (NOx). Potassium oxide. Sulfur oxides. Ketones. Organic acids.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Diarrhea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
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distillates (petroleum), hydrotreated light (CAS 64742-47-8)

Acute

Dermal

LD50	Rabbit	> 2000 mg/kg
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Inhalation

LC50	Rat	> 5 mg/l, 4 hours
------	-----	-------------------

Oral

LD50	Rat	> 5000 mg/kg
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paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)

Acute

Dermal

LD50	Rabbit	> 2000 mg/kg
------	--------	--------------

Oral

LD50	Rat	> 5000 mg/kg
------	-----	--------------

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	3 Not classifiable as to carcinogenicity to humans.
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naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)	3 Not classifiable as to carcinogenicity to humans.
--	---

paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	3 Not classifiable as to carcinogenicity to humans.
---	---

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death. May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	Toxic to aquatic life. May cause long lasting harmful effects to aquatic life.
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential	No data available.
Partition coefficient n-octanol / water (log Kow) oleic acid	7.64
Mobility in soil	No data available.
Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions	If discarded, this product is considered a RCRA ignitable waste, D001. Empty container can be recycled. Contents under pressure. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

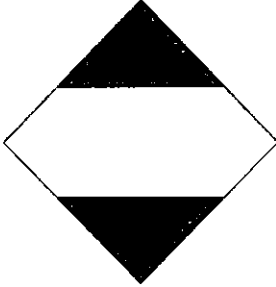
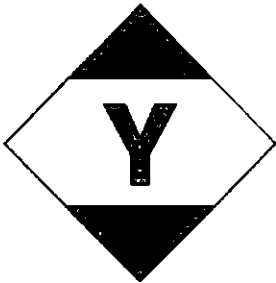
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	-
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	-
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number UN1950
UN proper shipping name AEROSOLS, Limited Quantity
Transport hazard class(es)
 Class 2.1
 Subsidiary risk -
Packing group -
Environmental hazards
 Marine pollutant No.
EmS F-D, S-U
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

DOT; IMDG**IATA**

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

distillates (petroleum), hydrotreated light (CAS 64742-47-8)

CERCLA Hazardous Substances: Reportable quantity

distillates (petroleum), hydrotreated light 100 LBS
 (CAS 64742-47-8)

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
Gas under pressure
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
Not regulated.

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)
distillates (petroleum), hydrotreated light (CAS 64742-47-8)
naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)

US. New Jersey Worker and Community Right-to-Know Act

carbon dioxide (CAS 124-38-9)

US. Massachusetts RTK - Substance List

carbon dioxide (CAS 124-38-9)
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)

US. Pennsylvania Worker and Community Right-to-Know Law

carbon dioxide (CAS 124-38-9)
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)
distillates (petroleum), hydrotreated light (CAS 64742-47-8)
naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)
oleic acid (CAS 112-80-1)
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)

US. Rhode Island RTK

carbon dioxide (CAS 124-38-9)
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)
distillates (petroleum), hydrotreated light (CAS 64742-47-8)
oleic acid (CAS 112-80-1)
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)

California Proposition 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

benzene (CAS 71-43-2)	Listed: February 27, 1987
ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004
naphthalene (CAS 91-20-3)	Listed: April 19, 2002

California Proposition 65 - CRT: Listed date/Developmental toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
toluene (CAS 108-88-3)	Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
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Volatile organic compounds (VOC) regulations**EPA**

VOC content (40 CFR 51.100(s)) 97.2 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as a Penetrant. This product is compliant for use in all 50 states.

VOC content (CA) 24.1 %

VOC content (OTC) 24.1 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	10-08-2021
Revision date	12-03-2021
Prepared by	Danica Fulmer
Version #	02
Further information	CRC # 575H/1002602

Disclaimer The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision information Composition / Information on Ingredients: Disclosure Overrides
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Data

SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

SCS1001 12C-Crtrg (0.730 Lbs-0.331 Kg)

Section 1. Product and company identification

Product name : SCS1001 12C-Crtrg (0.730 Lbs-0.331 Kg)
Chemical name : Not available

**Manufacturer/Importer/
Distributor Information** : Momentive Amer Seal.
260 Hudson River Road
Waterford NY 12188

Contact person : 4information@momentive.com


Telephone : General information
+1-800-295-2392

**Emergency telephone number
Supplier** : CHEMTREC
1-800-424-9300

Section 2. Hazards identification

**Classification of the substance or
mixture** : SKIN CORROSION/IRRITATION - Category 2
TOXIC TO REPRODUCTION - Category 2

GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H315 Causes skin irritation.
H361f Suspected of damaging fertility.

Precautionary statements

General : Not applicable.

Prevention : Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use personal protective equipment as required.
Wear protective gloves.
Wash hands thoroughly after handling.

Response : IF exposed or concerned:
Get medical attention.
IF ON SKIN:
Wash with plenty of soap and water.

Take off contaminated clothing.
 Wash contaminated clothing before reuse.
 If skin irritation occurs:
 Get medical attention.

- Storage** : Store locked up.
- Disposal** : P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Other hazards which do not result in classification** : Uncured product is irritating to eyes, skin, and respiratory system.
 Generates acetic acid during cure.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
Chemical name : Not available

Hazardous ingredients	% by weight	CAS number
Silanetriol, 1-methyl-, 1,1,1-triacetate	1 - 5	4253-34-3
Octamethylcyclotetrasiloxane	1 - 5	556-67-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first aid personnel** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures
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Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
- Unsuitable extinguishing media** : water jet
- Specific hazards arising from the chemical** : No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a

- licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see section 8 of SDS). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Octamethylcyclotetrasiloxane	(Recommended exposure limit (REL): 5 ppm

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties**Appearance**

- Physical state** : Paste
- Color** : colorless.
- Odor** : Acetic acid.
- Odor threshold** : Not available
- pH** : Not available
- Melting point** : Not available
- Boiling point** : Not available
- Flash point** : 93 °C (199.40 °F) (Estimated.)
- Burning time** : Not available
- Burning rate** : Not available
- Evaporation rate** : Not available
- Flammability (solid, gas)** : Not available
- Lower and upper explosive (flammable) limits** : **Lower:** Not applicable.
Upper: Not applicable.

Vapor pressure	:	Not available
Vapor density	:	Not available
Relative density	:	Not available
Density	:	1.06 g/cm ³
Solubility	:	Soluble in toluene
Solubility in water	:	Insoluble
Partition coefficient: n-octanol/water	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
SADT	:	Not available
Viscosity	:	Dynamic: Not available Kinematic: Not available
Volatile organic content	:	1.5 % (w/w) 20 g/l

Other information

No additional information.

Section 10. Stability and reactivity

Reactivity	:	Stable under normal conditions.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	No specific data.
Incompatible materials	:	No specific data.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information
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Information on toxicological effects**Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Octamethylcyclotetrasiloxane	LD50 Oral	Rat	4,800 mg/kg OECD-Guideline 401 (Acute Oral Toxicity)	-
	LC50 Inhalation	Rat	> 12.1 mg/l	4 h
	LC50 Inhalation	Rat	36 mg/l OECD Test Guideline 403	4 h
	LD50 Dermal	Rat	> 2,400 mg/kg OECD Test Guideline 402	-

Conclusion/Summary : Not determined

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
SCS1001	Skin - Moderate irritant OECD-Guideline 404 (Acute Dermal Irritation/Corrosion)	Rabbit			-
Remarks:	Classification according to test study data of a similar product.				
	eyes - Mild irritant OECD-Guideline 405 (Acute Eye Irritation/Corrosion)	Rabbit			-
Remarks:	Classification according to test study data of a similar product.				
Octamethylcyclotetrasiloxane	Skin OECD-Guideline 404 (Acute Dermal Irritation/Corrosion)	Rat			-
Remarks:	Non-irritating to the skin.				
	eyes OECD-Guideline 405 (Acute Eye Irritation/Corrosion)	Rabbit			-
Remarks:	Non-irritating to the eyes.				

Conclusion/Summary

Skin : Moderate irritant
eyes : Mild irritant
Respiratory : Not determined

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Octamethylcyclotetrasiloxane	-	Guinea pig	Not sensitizing OECD-Guideline 406 (Skin Sensitisation)

Conclusion/Summary

Skin : Not determined
Respiratory : Not determined

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Octamethylcyclotetrasiloxane	OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)	In vitro	Negative
	Mouse Lymphoma Assay (OECD Guideline 476)	In vitro	Negative
	OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)	In vivo	Negative

Conclusion/Summary : Not determined

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Octamethylcyclotetrasiloxane	Inhalation - OECD 453	Rat - Female	150 mg/kg	24 months
Remarks:	NOAEC			
	Inhalation - OECD 453	Rat - Male	> 700 mg/kg	24 months
Remarks:	NOAEC			

Conclusion/Summary : Not determined

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Octamethylcyclotetrasiloxane	-	-	-	Rat	Inhalation: 300 mg/kg OECD 416	-
Remarks:	NOAEL parents					
	-	-	-	Rat	Inhalation: 300 mg/kg OECD 416	-
Remarks:	NOAEL F1					

Conclusion/Summary : Not determined

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Octamethylcyclotetrasiloxane	- Inhalation OECD Test Guideline 414	Rabbit	500 mg/kg	18 days
Remarks:	NOAEL			
	- Inhalation OECD Test Guideline 414	Rabbit	300 mg/kg	18 days
Remarks:	NOAEL maternity			

Conclusion/Summary : Not determined

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Silanetriol, 1-methyl-, 1,1,1-triacetate	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available

Aspiration hazard

Not available

Information on the likely routes of exposure : Not available

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation.
Ingestion : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
Inhalation : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
Ingestion : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available
Potential delayed effects : Not available

Long term exposure

Potential immediate effects : Not available
Potential delayed effects : Not available

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Octamethylcyclotetrasiloxane	NOAEC Inhalation	Rat	150 mg/kg OECD 453	24 months
Remarks:	NOAEC			
	NOAEL Dermal	Rabbit	> 1 mg/kg OECD 410	3 weeks
Remarks:	NOAEL			

Conclusion/Summary : Not determined

General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	11,982.6 mg/kg

Other information

Octamethylcyclotetrasiloxane (D4) Ingestion: Rodents given large doses via oral gavage of Octamethylcyclotetrasiloxane (1600mg/kg/day, 14 days), developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size). Inhalation: In inhalation studies, laboratory rodents exposed to Octamethylcyclotetrasiloxane (300 ppm five days/week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. This response in rats, which does not affect the animal's health, is well-documented and widely recognized. It is related to an increase of liver enzymes that metabolize and eliminate a material from the body. The increased liver weight reverses even while the D4 exposure continues. The finding is not adverse, but is considered a natural adaptive change in rats, and does not represent a hazard to humans. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents. Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation), with D4. Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found. A two-year, combined chronic/carcinogenicity study, during which rats were exposed to D4 by inhalation, data showed a statistically significant increase in a benign uterine tumor in female rats exposed at the highest level--a level much higher than the low levels that consumers or workers may encounter. An expert panel of independent scientists who have reviewed the results of this research concur that the finding seen in the two-year study occurred through a biological pathway that is specific to the rat and is not relevant to humans. Therefore, this observed effect does not indicate a potential health hazard to humans. In developmental toxicity studies, rats and rabbits were exposed to D4 at concentrations up to 700 ppm and 500 ppm, respectively. No teratogenic effects (birth defects) were observed in either study.

Section 12. Ecological information

Ecotoxicity

Conclusion/Summary : Not available

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
octamethylcyclotetrasiloxane	310 Ready Biodegradability - CO ₂ in Sealed Vessels	3.7 % - 29 d		Activated sludge

	(Headspace Test)		
Remarks:	Not readily biodegradable.		

Conclusion/Summary : Not available

Bioaccumulative potential

Product/ingredient name	Species	Exposure	LogPow	BCF	Potential
Octamethylcyclotetrasiloxane	Fathead minnow	28 d		12.40	low

Mobility in soil

Soil/water partition coefficient (KOC) : Not available

Other adverse effects : No known significant effects or critical hazards.

Other information

Octamethylcyclotetrasiloxane (D4) meets the current REACH Annex XIII criteria for PBT and vPvB. However, D4 does not behave similarly to known PBT/vPvB substances. The silicones industries interpretation of the available data is that the weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Special precautions for user : This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

15. Regulatory information

United States

U.S. Federal regulations : **United States - TSCA 12(b) - Chemical export notification:** None required.
United States - TSCA 5(a)2 - Final significant new use rules: Not listed
United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed
United States - TSCA 5(e) - Substances consent order: Not listed

SARA 311/312

Classification : Immediate (acute) health hazard
 Delayed (chronic) health hazard

California Prop. 65: : None required.

Canada

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).
 Class D-2B: Material causing other toxic effects (Toxic).

International regulations

International lists : **Australia inventory (AICS):** All components are listed or exempted.
Canada inventory: At least one component is not listed in DSL but all such components are listed in NDSL.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
New Zealand Inventory (NZIoC): Not determined.
Philippines inventory (PICCS): All components are listed or exempted.
United States inventory (TSCA 8b): All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Taiwan inventory (CSNN): All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System III (U.S.A.) :

Health	1
	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

Full text of abbreviated H statements : Not applicable.

History

Date of printing : 05/19/2015

Date of issue/Date of revision : 04/10/2015
Date of previous issue : 04/03/2015
Version : 1.5
Prepared by : Product Safety Stewardship
Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
UN = United Nations
References : Not available

Notice to reader

Unless otherwise specified in section 1, Momentive Products are intended for industrial application only. They are not intended for specific medical applications, neither for long-lasting (> 30 days) implantation into the human body, injected or directly ingested, nor for the manufacture of multiple usable contraceptives. Keep out of the reach of children.

Further Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



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1. Identification

1.1. Product identifier

Product Identity Isopropyl Alcohol 99%
Alternate Names Product Code: 005

1.2. Details of the supplier of the safety data sheet

Company Name Hydrox Laboratories
825 Tollgate Rd.
Elgin, IL 60123

Emergency

24 hour Emergency Telephone No. 800-255-3924
Customer Service: Hydrox Laboratories 847-468-9400

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Liq. 2;H225
Eye Irrit. 2A;H319
Specific target organ toxicant (central nervous system): Category 3

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

(Not required on cosmetic product or case labels per Occupational Safety and Health Standards 29 CFR 1910.1200(b)(5))



Danger

H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness and dizziness.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
P235 Keep cool.
P240 Ground / bond container and receiving equipment.



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P241 Use explosion-proof electrical / ventilating / light / equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P337+313 If eye irritation persists: Get medical advice / attention.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Isopropyl Alcohol CAS Number: 0000067-63-0	100%	Flam. Liq. 2;H225 Eye Irrit. 2A;H319 STOT SE 3;H336	[1][2]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.



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Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview

Signs and Symptoms of Exposure: Giddiness, headache, dizziness and nausea.

Health Hazards (Acute and Chronic): Generally used as a rubdown. Vapor irritates eyes. High concentration of vapor can irritate respiratory tract, is anesthetic and may cause CNS depression.

Medical Conditions Generally Aggravated by Exposure: Pre-existing and respiratory disorders, may be aggravated by exposure.

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Inhalation May cause drowsiness or dizziness.

Eyes Causes serious eye irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water fog.
Do not use: water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Burning may produce carbon monoxide and carbon dioxide contamination.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.



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Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

Dilution of burning liquid with water will affect extinguishment.

5.4. Flammability Properties

Flash Point [Method]: 12°C (54°F) [ASTM D-56]

Flammable Limits (Approximate volume % in air): LEL: 2.0 UEL: 13

Autoignition Temperature: >350°C (662°F) [Technical literature]

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Eliminate all sources of ignition. Small spills should be flushed with large quantities of water. Larger spills should be collected for disposal.

7. Handling and storage

7.1. Precautions for safe handling

Do not take internally. Flammable liquid.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Anhydride, isocyanate, monomer and organo-metallic.

Keep away from heat, sparks and open flames. Keep container closed.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.



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8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000067-63-0	Isopropyl Alcohol	OSHA	TWA 400 ppm (980 mg/m ³) STEL 500 ppm
		ACGIH	TWA: 200 ppm STEL: 400 ppm Revised 2003,
		NIOSH	TWA 400 ppm (980 mg/m ³) ST 500 ppm (1225 mg/m ³)
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000067-63-0	Isopropyl Alcohol	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;

8.2. Exposure controls

- Respiratory** If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
- Eyes** Chemical resistant goggles
- Skin** Rubber or vinyl gloves
- Engineering Controls** Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
- Other Work Practices** Eye bath and safety shower. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Colorless Liquid
Odor	Characteristic
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	-89°C (-128°F)
Initial boiling point and boiling range	Not Measured
Flash Point	12°C (54°F) [ASTM D-56]



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Evaporation rate (n-butyl acetate = 1)	3.9 [in-house method]
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 2.0 Upper Explosive Limit: 12.0
Vapor pressure	4.3 kPa (32.25mm Hg) at 20°C [Calculated] [In-house method]
Vapor Density (Air = 1)	>1 at 101 kPa [Calculated]
Specific Gravity	0.800 - 0.833 @ 20C
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	>350°C (662°F) [Technical literature]
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Isopropyl Alcohol Assay	99.5 – 100%
9.2. Other information	
No other relevant information.	

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid heat, sparks and open flame.

10.5. Incompatible materials

Anhydride, isocyanate, monomer and organo-metallic.

10.6. Hazardous decomposition products

Burning may produce carbon monoxide and carbon dioxide contamination.

11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.



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Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Isopropyl Alcohol - (67-63-0)	4,710.00, Rat - Category: 5	12,800.00, Rat - Category: NA	72.60, Rat - Category: NA	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Hazard Class	Conclusion / Remarks
Inhalation	
Acute toxicity: (Rat) 6 hour(s) LC50> 25000 mg/m3 (Vapor)	Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 403
Irritation: No end point data for material	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Acute toxicity (Rat): LD50 5840 mg/kg	Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 401
Skin	
Acute toxicity (Rabbit): LD50 13900 mg/kg	Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 402
Skin Corrosion/Irritation: Data Available	May dry the skin leading to discomfort and dermatitis. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 404
Eye	
Serious Eye Damage/Irritation: Data available.	Irritating and will injure eye tissue. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 405
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: Data available.	Not expected to be a skin sensitizer. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 406
Aspiration: Data available.	May be harmful if swallowed and enters airways. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: Data available.	Not expected to be a germ cell mutagen. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 471 474 476
Carcinogenicity: Data available.	Not expected to cause cancer. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 451



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Reproductive Toxicity: Data available.	Not expected to be a reproductive toxicant. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 414 415 416
Lactation: No end point data for material.	Note expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single exposure: No end point data for material.	May cause drowsiness or dizziness.
Repeated Exposure: Data available.	Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 413

12. Ecological information

12.1. Toxicity

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Isopropyl Alcohol - (67-63-0)	1,400.00, <i>Lepomis macrochirus</i>	100.00, <i>Daphnia magna</i>	100.00 (72 hr), <i>Scenedesmus subspicatus</i>

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.



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14. Transport information

UN Number	1219
UN Proper Shipping Name	Isopropanol, 3
DOT Classification	Hazmat at all levels depending on size of packaging, Excepted or Limited Quantity or Fully Regulated
Packaging Group	PGII
Additional Information	IATA OR IMDG – UN1219, Isopropanol, 3, PG II

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification B2 D2B

US EPA Tier II Hazards Fire: Yes

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs: No chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous: No chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Isopropyl Alcohol

Proposition 65 - Carcinogens (>0.0%): No chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%): No chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%): No chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%): No chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Isopropyl Alcohol

Pennsylvania RTK Substances (>1%):

Isopropyl Alcohol



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16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness and dizziness.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

Disclaimer: The contents of this MSDS are believed to be correct but do not purport to be all-inclusive and should only be used as a guide. Hydrox Laboratories, Inc. disclaims any express or implied warranty as to the accuracy of the above information and shall not be held liable for any direct, incidental or consequential damages resulting from the reliance on the above information.

End of Document



Revision Number: 006.0

Issue Date: 08/11/2014

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product identifier used on the label: Soft Scrub® with Bleach Cleanser
Soft Scrub® with Bleach Disinfectant Cleanser
Commercial Soft Scrub® with Bleach Disinfectant Cleanser

Other means of identification: 1388321, 1432932, 1550861 (SS w/Bleach Disinfectant Cleanser)

Recommended use of the chemical and restrictions on use: Cleansing Cream, Do not mix with other products.

Name, address and telephone number of the chemical manufacturer:

The Dial Corporation, a Henkel Company
7201 E. Henkel Way
Scottsdale, AZ 85255-9672 USA

CHEMTREC: 1-800-424-9300 (24 hours daily)
Internet: www.henkelna.com

Emergency telephone number: Medical Emergencies: 1-888-689-9082

2. HAZARD IDENTIFICATION

Classification of the substance or mixture in accordance with paragraph (d) of §1910.1200

HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1A
SERIOUS EYE DAMAGE	1
GERM CELL MUTAGENICITY	2
REPRODUCTIVE TOXICITY	1B
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1
ACUTE HAZARDS TO THE AQUATIC ENVIRONMENT	2

Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200

Signal word: DANGER

Hazard Statement(s): Causes severe skin burns and eye damage. Suspected of causing genetic defects. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life.



Symbol(s):

Precautionary Statements:

Prevention: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe vapors, mist, or spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves, eye protection, and face protection.

Response: Use personal protective equipment as required.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Immediately call a POISON CENTER or physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing.
IF exposed or concerned: Get medical attention.
Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Hazards not otherwise classified: Not available.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

The following chemicals are classified as health hazards in accordance with paragraph (d) of § 1910.1200.

Chemical Name*	CAS Number (Unique Identifier)	Concentration	Classification §1910.1200
Limestone	1317-65-3	30 - 60 %	Eye irritation 2B
Boehmite (Al(OH)O)	1318-23-6	1 - 5%	Serious eye damage 1 Skin irritation 2 Reproductive toxicity 1B Specific target organ toxicity - repeated exposure 1 Specific target organ toxicity – single exposure 3
Sulfonic acids, C13-17-sec-alkane, sodium salts	85711-69-9	1 - 5 %	Serious eye damage 1
Sodium hypochlorite	7681-52-9	1 - 5%	Serious eye damage 1 Skin corrosion 1B Germ cell mutagenicity 2 Corrosive to metals 1 Acute hazards to the aquatic environment 1

*The specific chemical identity and/or exact percentage (concentration) of composition has been withheld because a trade secret is claimed in accordance with paragraph (i) of §1910.1200.

4. FIRST AID MEASURES

Description of necessary measures

Inhalation: Keep affected person warm and at rest. Remove from exposure area to fresh air immediately. Treat symptomatically and supportively. Contact physician or local poison control center.

Skin contact: Take off contaminated clothing. Rinse affected area with large amounts of water until no evidence of product remains. Contact physician or local poison control center.

Eye contact: Rinse eyes immediately with plenty of water, occasionally lifting upper and lower lids, until no evidence of product remains. Get medical attention if pain or irritation develops.

Ingestion: Treat symptomatically and supportively. Maintain airway and respiration. Do not induce vomiting. Dilution by rinsing the mouth and giving water or milk to drink is generally recommended. Contact physician or local poison control center.

Most important symptoms and effects, both acute and delayed

After eye contact: Moderate to strong irritation of the eyes (redness, swelling, burning, watering eyes). After skin contact: Moderate to strong irritation of the skin (redness, swelling, burning), severe burns also possible. After Ingestion: Ingestion may cause pain, burning, swelling and redness in the mouth and throat. Nausea and vomiting may occur. After inhalation: Irritation of the respiratory tract, coughing. Inhalation of larger amounts may cause laryngospasm with shortness of breath.

Indication of any immediate medical attention and special treatment needed

After eye contact: Rinse eyes immediately with plenty of water, occasionally lifting upper and lower lids, until no evidence of product remains.

After skin contact: Rinse affected area with large amounts of water until no evidence of product remains. After ingestion: Do not induce vomiting. Dilution by rinsing the mouth and giving a glass of water to drink is generally recommended. After inhalation: Remove from exposure area to fresh air.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Dry chemical, carbon dioxide, water spray or regular foam.

Unsuitable extinguishing media: None known

Specific hazards arising from the chemical

Oxides of carbon and oxides of nitrogen.

Special protective equipment and precautions for fire-fighters

In case of fire, wear a full-face positive-pressure self-contained breathing apparatus and protective suit. Move containers from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Avoid breathing hazardous vapors, keep upwind. Isolate area. Keep unnecessary personnel away.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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Wear skin, eye and respiratory protection as recommended in Section 8. Stop leak if you can do it without risk. Spills present a slipping hazard. Keep unnecessary personnel away. Ventilate spill area if possible. Make sure area is slip-free before re-opening to traffic.

Environmental Precautions

This product is toxic to fish and aquatic invertebrates. This product should not be directly discharged into lakes, streams, ponds, estuaries, oceans, public water supplies, or other waters.

Methods and materials for containment and cleaning up

SMALL SPILLS: Contain and absorb with sand or other absorbent material and place into clean, dry containers for later disposal. Wash site of spillage thoroughly with water. **LARGE SPILLS:** Dike far ahead of spill to prevent further movement. Recover by pumping or by using a suitable absorbent material and place into containers for later disposal. Dispose in suitable waste container.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, ventilated area out of reach of children and away from sources of heat, moisture, and incompatible substances. Storage areas for large quantities (warehouse) should be well ventilated. Keep the containers tightly closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.

Hazardous Component(s)	ACGIH	OSHA PEL	AIHA WEEL	OTHER
Limestone	10 mg/m3 TWA Total dust.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
Boehmite (Al(OH)O)	1 mg/m3 TWA Respirable fraction.	None	None	None
Sodium hypochlorite	None	None	2 mg/m3 STEL	None

Appropriate engineering controls

Provide local exhaust or general dilution ventilation to keep exposure to airborne contaminants below the permissible exposure limits where mists or vapors may be generated. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Individual protection measures

Respiratory: Air contamination monitoring should be carried out where mists or vapors are likely to be generated, to assure that the employees are not exposed to airborne contaminants above the permissible exposure limits.

Eye: Splash-proof safety glasses are required to prevent eye contact where splashing of product may occur.

Hand/Body: Protective gloves are required where repeated or prolonged skin contact may occur. Protective clothing is required where repeated or prolonged skin contact may occur.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	cream, white
Odor:	characteristic
Odor threshold:	Not available.
pH:	12.7 (25 °C)
Melting point/ range:	Not available.
Boiling point/range:	Not available.
Flash point:	> 93.3 °C (> 199.94 °F)
Evaporation rate:	Not available.
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Solubility in water:	Not available.
Partition coefficient (n-octanol/water):	Not available.
Autoignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	5,000 - 12,000 mPa.s
VOC content:	Not available.
Specific gravity:	1.3 (25°C, 77°F)

10. STABILITY AND REACTIVITY

- Reactivity:** This product reacts with acids.
- Chemical stability:** Stable under normal ambient temperature (70°F, 21°C) and pressure (1 atm).
- Possibility of hazardous reactions:** Hazardous polymerization has not been reported to occur under normal temperatures and pressures.
- Conditions to avoid:** Avoid storing in direct sunlight and avoid extremes of temperature.
- Incompatible materials:** Strong oxidizers, acids. Reacts with other household chemicals such as acid toilet bowl cleaners, rust removers, acids, vinegar, and ammonia-containing products to produce hazardous gases, such as chlorine and other chlorinated compounds
- Hazardous decomposition products:** Thermal decomposition may produce irritating smoke, oxides of carbon and chlorine.

11. TOXICOLOGICAL INFORMATION

Likely routes of exposure including symptoms related to characteristics

- Inhalation:** Irritating, in high concentration, to the respiratory tract (nose, throat, and lungs). Direct contact with mucous membranes may result in corrosive damage.
- Skin contact:** Concentrated product may be severely irritating.
- Eye contact:** May cause moderate to severe irritation, with possibility of corneal injury if not removed promptly.
- Ingestion:** Ingestion may cause severe irritation or burns to esophagus, mouth, and stomach with nausea, vomiting and diarrhea.
- Physical/Chemical:** The product is alkaline. The product is corrosive.

Other relevant toxicity information:

This product is a household product. The use of this product by consumers is safe under normal and reasonable foreseen use.

Numerical measures of toxicity, including delayed and immediate effect

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Limestone	None	Nuisance dust
Boehmite (Al(OH)O)	None	Respiratory, Lung, Corrosive, Nervous System, Irritant, Developmental, Blood
Sulfonic acids, C13-17-sec-alkane, sodium salts	None	No data
Sodium hypochlorite	Oral LD50 (RAT) = 8.91 g/kg	Irritant, Corrosive, Skin, Mutagen, Immune system

Carcinogenicity information

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Limestone	No	No	No
Boehmite (Al(OH)O)	No	No	No
Sulfonic acids, C13-17-sec-alkane, sodium salts	No	No	No
Sodium hypochlorite	No	No	No

- Carcinogenicity** None of the ingredients in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA).
- Mutagenicity** This product contains an ingredient which has been associated with mutagenicity effects.
- Toxicity to reproduction** This product contains an ingredient which has been associated with reproductive, fetal or developmental effects.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:

This product is anticipated to be safe for the environment at concentrations predicted in household settings under normal use conditions. The following toxicity information is available for the hazardous ingredient(s) when used as technical grade and is provided as reference for the occupational settings.

Toxicity to fish:

Hazardous substances	Value type	Value	Acute toxicity study	Exposure time	Species	Method
Calcium carbonate	LC50	> 10,000 mg/l	Fish	96 h		OECD 203
Boehmite (Al(OH)O)	LC50	> 100 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD 203
Sulfonic acids, C13-17-sec-alkane, sodium salts	LC50	4.1 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Sodium hypochlorite	LC50	10 – 100 mg/l	Fish			OECD 203

Toxicity to aquatic invertebrates:

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Hazardous substances	Value type	Value	Acute toxicity study	Exposure time	Species	Method
Calcium carbonate	EC50	> 1,000mg/l	Daphnia	48 h	Daphnia magna	OECD 202
Boehmite (Al(OH)O)	EC50	> 100 mg/l	Daphnia	48 h	Daphnia magna	OECD 202
Sulfonic acids, C13-17-sec-alkane, sodium salts	EC50	7.5 mg/l	Daphnia	24 h	Daphnia magna	
Sodium hypochlorite	EC50	10 – 100 mg/l	Daphnia		Daphnia magna	OECD 202

Toxicity to algae:

Hazardous substances	Value type	Value	Acute toxicity study	Exposure time	Species	Method
Calcium carbonate	EC50	> 200 mg/l	Algae	72 h		OECD 201
Sulfonic acids, C13-17-sec-alkane, sodium salts	EC50	95.5 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD 201
Sodium hypochlorite	EC50	0.4 mg/l	Algae	24 h	Dunaliella sp.	OECD 201

Persistence and Degradability:

Hazardous substances	Result Value	Route of application	Species	Method
Sulfonic acids, C13-17-sec-alkane, sodium salts	readily biodegradable	aerobic	71 %	EU Method C.4-E (closed bottle)

Bioaccumulation Potential: The bioaccumulation potential of this product has not been determined.

Mobility: The mobility of this product (in soil and water) has not been determined.

13. DISPOSAL CONSIDERATIONS

Waste Number and Description: D002 (Corrosivity)

Disposal Considerations:

Disposal of products:

This product is a RCRA characteristic hazardous waste (corrosive) and must be disposed of in a RCRA Subtitle C landfill. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance

Disposal of packages:

Do not reuse this container. Dispose of container and unused contents in accordance with federal, state and local requirements.

Additional information:

Observe all federal, state and local regulations when storing or disposing of this substance

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated

Hazard class or division: None

Identification number: None

Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Environmentally hazardous substance, liquid, N.O.S.

Hazard class or division: 9

Identification number: UN3082

Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: Environmentally hazardous substance, liquid, N.O.S.

Hazard class or division: 9

Identification number: UN3082

Packing group: III

15. REGULATORY INFORMATION

Occupational Safety and Health Act: Hazard Communication Rule, 29 CFR 1910.1200: The Occupational Safety and Health Administration (OSHA) require Material Safety Data Sheets (MSDSs) to provide information about any hazard that may be associated with the product and make this information available in the workplace. Since the use pattern and exposure in the workplace are generally not consistent with those experienced by consumers, this MSDS may contain health hazard information not relevant to consumer use.

United States Regulatory Information:

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

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TSCA 12 (b) Export Notification: None above reporting de minimis
CERCLA/SARA Section 302 EHS The following components are subject to reporting levels established by SARA Title III, Section 302:
Hydrochloric acid (CAS# 7647-01-0).
CERCLA/SARA Section 311/312: Not available.
CERCLA/SARA Section 313: None above reporting de minimis
California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Export Restrictions: This is a pesticide product registered by the US Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. Refer to the pesticide label for specific hazard information. The pesticide label also includes other important information, including directions for use.

Canada Regulatory Information:

CEPA DSL/NDSL Status: One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.

16. OTHER INFORMATION

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: R&D Support Services

Issue date: 08/11/2014

Supersedes: Rev. 5, 03/29/2011



Safety Data Sheet

1 - Identification

Product Name: Spot Shot Instant Carpet Stain Remover Aerosol	Manufacturer: WD-40 Company
Product Use: Carpet Cleaner	Address: 9715 Businesspark Avenue San Diego, California, USA 92131
Restrictions on Use: None identified	Telephone:
SDS Date Of Preparation: July 19, 2018	Emergency: 1-888-324-7596
	Information: 1-888-324-7596
	Chemical Spills: 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)

2 - Hazards Identification

Hazcom 2012/GHS Classification:
 Flammable Aerosol Category 1
 Gas Under Pressure: Compressed Gas
 Eye Irritant Category 2A

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:



DANGER!
 Extremely Flammable Aerosol
 Contains gas under pressure; may explode if heated.
 Causes serious eye irritation.

Prevention

Keep away from heat, sparks, open flames, hot surfaces – No smoking.
 Do not spray on an open flame or other ignition source.
 Pressurized container: Do not pierce or burn, even after use.
 Wash thoroughly after handling.
 Wear eye protection.

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention

Storage

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
2-(2-Butoxyethoxy) ethanol	112-34-5	<10%	Eye Irritation Category 2A

2-Butoxyethanol	111-76-2	<5%	Acute Oral Toxicity Category 4 Acute Dermal Toxicity Category 4 Acute Inhalation Toxicity Category 4 Eye Irritation Category 2A Skin Irritation Category 2
Liquefied Petroleum Gas	68476-85-7	<10%	Flammable Gas Category 1 Gas Under Pressure, Compressed Gas

Note: The exact percentages are a trade secret.

4 – First Aid Measures

Ingestion (Swallowed): Do not induce vomiting. Call a physician, poison control center, or the WD-40 Safety Hotline at 1-888-324-7596. Rinse mouth with water and give one eight-ounce glass of water to drink if the patient is conscious and responsive. Never give anything by mouth to an unconscious person.

Eye Contact: Flush eyes with plenty of water for several minutes, lifting upper and lower eyelids occasionally. Remove contact lenses if present and easy to do after the first 5 minutes then continue flushing. Get medical attention if irritation persists.

Skin Contact: Wash skin with soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation persists or symptoms of exposure develop.

Inhalation (Breathing): Remove to fresh air. Get medical attention if symptoms persist.

Signs and Symptoms of Exposure: Causes eye irritation. May cause skin and respiratory irritation. Harmful if intentionally inhaled. Maybe harmful if absorbed through skin. May affect liver, kidneys, blood, lymphatic system or central nervous system.

Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is not required.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use any media suitable for the surrounding fire.

Specific Hazards Arising from the Chemical: Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting cans.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

Methods and Materials for Containment/Cleanup: Place leaking can in an open container in a well ventilated area until pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use with adequate ventilation. Keep away from heat, sparks, hot surfaces and open flames. Do not smoke or use around open flames or sources of extreme heat. **Intentional misuse by deliberately concentrating vapors and inhaling can be harmful or fatal.** Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture or incinerate containers.

Conditions for Safe Storage: Store in a cool, dry ventilated area. Protect from physical damage. Do not store in direct sunlight, near open flames or above temperatures greater than 120 F. Do not place can in hot water or near radiators, stoves or other sources of heat. U.F.C (NFPA 30B) Level 1 Aerosol.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
2-(2-Butoxyethoxy) ethanol	10 ppm TWA ACGIH TLV (inhalable fraction and vapor)
2-Butoxyethanol	20 ppm TWA ACGIH TLV 50 ppm TWA (Skin) OSHA PEL
Liquefied Petroleum Gas (propane, n-butane)	1000 ppm Ceiling ACGIH TLV (butane) 1000 ppm TWA OSHA PEL (propane)

The Following Controls are Recommended for Normal Consumer Use of this Product

Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact. Always spray away from face.

Skin Protection: Avoid prolonged skin contact. Wash hands with soap and water after use.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Skin Protection: Wear appropriate protective clothing and chemical-resistant gloves to prevent skin contact. Wash thoroughly after handling.

Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Appearance:	Aerosol foam	Flammable Limits: (Solvent Portion)	LEL: 1.1% UEL: 10.6% (Propellant)
Odor:	Mild glycol ether odor	Vapor Pressure:	Not available
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not applicable	Relative Density:	0.9713
Melting/Freezing Point	Not established	Solubilities:	Soluble in water
Boiling Point/Range:	-44 – 341°F (Propellant)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	Not established	Autoignition Temperature:	Not established
Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas)	Not flammable per Flame Extension Test	Viscosity:	Not established
VOC:	8.8%	Pour Point:	Not established

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions.

Chemical Stability: Stable

Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.

Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.

Incompatible Materials: Avoid strong oxidizers, strong bases, acids and chlorinated solvents.

Hazardous Decomposition Products: Burning can produce carbon monoxide and/or carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:

Inhalation: Excessive inhalation can cause headache, drowsiness, nausea and lack of coordination. Can cause irritation of respiratory tract. Overexposure to propellant may cause respiratory depression, heart rate rhythm irregularities, headache, shortness of breath, and unconsciousness.

Skin Contact: Can cause mild skin irritation. Harmful amounts may be absorbed through the skin with symptoms similar to those under inhalation and ingestion.

Eye Contact: Liquid sprayed into eyes may cause mild irritation.

Ingestion: Symptoms are similar to those of inhalation including pain, diarrhea and vomiting. May cause damage to the liver and kidneys.

Chronic Effects: 2-butoxyethanol has caused lymphatic system, blood, liver and kidney damage.

Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.

Reproductive Toxicity: None of the components is considered a reproductive hazard.

Numerical Measures of Toxicity:

This product has been determined to be mildly irritating to the eyes by using a quantitative in vitro test method that mimics an acute ocular irritation test.

The following information is available for the individual components:

2-(2-Butoxyethoxy) ethanol: Acute oral rat LD50: 4,500 mg/kg; Acute Dermal rabbit LD50: 4,120 mg/kg;

2-Butoxyethanol: Inhalation Rat LC50 4-HR: 450 ppm; Acute oral rat LD50: 1,480 mg/kg; Acute Dermal rabbit LD50: 490 mg/kg

Liquefied Petroleum Gas: No toxicity data is available

12 – Ecological Information

Ecotoxicity:

2-(2-Butoxyethoxy) ethanol: LC50 fish (*Iepomis macrochirus*) 1300 mg/L/96 hr; EC50 daphnia magna 3200 mg/L/24 hr

2-Butoxyethanol: 96 hr LC50 *Oncorhynchus mykiss* 1474 mg/L; 48 hr EC50 daphnia magna 1550 mg/L; 72 hr EC50 *Pseudokirchnerella subcapitata* 911 mg/L

Persistence and Degradability: Solvents are readily biodegradable.

Bioaccumulative Potential: Bioaccumulation is not expected based on an assessment of the ingredients.

Mobility in Soil: No data available

Other Adverse Effects: None known

13 - Disposal Considerations

Aerosol containers should not be punctured, compacted in home trash compactors or incinerated. Empty containers may be disposed of through normal waste management options. Dispose of all waste product, absorbents, and other materials in accordance with applicable Federal, state and local regulations.

14 – Transportation Information

DOT Surface Shipping Description:

UN1950, Aerosols, 2.1 Ltd. Qty (Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)

IMDG Shipping Description: Un1950, Aerosols, 2.1, LTD QTY

ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1 NOTE: WD-40 does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

U.S. Federal Regulations:

CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III

Section 313 Reporting requirements:

2-butoxyethanol: <5% by wt. (glycol ether compound)

2-(2-Butoxyethoxy) ethanol: <10% by wt. (glycol ether compound)

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

Canadian Environmental Protection Act: One of the components is listed on the NDSL. All of the other ingredients are listed on the Canadian Domestic Substances List or exempt from notification.

Canadian WHMIS Classification: Class A (Compressed Gas), Class B 5 (Flammable aerosol), Class D-2-B (Toxic material causing other toxic effects)

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

16 – Other Information:

HMIS Hazard Rating:

Health – 2 (moderate hazard), Fire Hazard – 2 (moderate hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: July 19, 2018

Supersedes: July 31, 2014

Revision Summary: Address and telephone number update in Section 1.

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed By: I. Kowalski

Regulatory Affairs

6080100/No.0061104



Northland Superline ExP 10W-30

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 01/18/2017

Revision date: 01/18/2017

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Northland Superline ExP 10W-30
Product code : F10J1
Other means of identification : API CK-4 Engine Oil

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : API CK-4 Engine Oil

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

other hazards which do not result in classification

: This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Spills of this product present a serious slipping hazard. Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals. When using high-pressure equipment, injection of product can occur. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Distillates, petroleum, solvent-dewaxed heavy paraffinic	(CAS No) 64742-65-0	0.1 - 5	Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined heavy paraffinic	(CAS No) 64741-88-4	0.1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined light paraffinic	(CAS No) 64741-89-5	0.1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304

Northland Superline Exp 10W-30

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest. In case of breathing difficulties administer oxygen.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.
- Symptoms/injuries after eye contact : If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Immediate treatment at a surgical emergency center is recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases flammable vapours. Leaks/ruptures in high pressure system can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain. This material can burn but will not readily ignite. Under fire conditions closed containers may rupture or explode.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor . Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

Northland Superline Exp 10W-30

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Recover large spills by pumping (use an explosion proof or hand pump). Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product. Never use pressure to empty containers. Over pressure may rupture containers, cause serious injury, cause or accelerate fire.

Precautions for safe handling : Keep out of reach of children. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Ground/bond container and receiving equipment. Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances.

Incompatible materials : Strong acid. Base. Oxidizing agents.

Storage temperature : Store at ambient temperature

Heat and ignition sources : Remove all sources of ignition.

Storage area : Well-ventilated area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Use ventilation to keep exposure to airborne contaminants below the exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles.



Hand protection : Wear protective gloves, rubber gloves.

Eye protection : Chemical goggles or safety glasses, with side-shields.

Skin and body protection : Long sleeved protective clothing. Wear rubber boots.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Protection factors vary depending upon the type of respirator used. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).

Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.

Other information : Do not eat, drink or smoke during use.

Northland Superline Exp 10W-30

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear to light amber.
Odour	: Petroleum characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 320 °C (608 °F)
Flash point	: 216 °C (421 °F) Test method: COC
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Lower Flammability Limit (LFL) 0.9 Upper Flammability Limit (UFL) 7.0
Vapour pressure	: < 0.01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.869 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: No data available
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 78 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other Information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal temperatures and pressures.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. unburned hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2.18 mg/l/4h
ATE CLP (dust,mist)	2.180 mg/l/4h

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Northland Superline ExP 10W-30

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LD50 dermal rabbit	> 5 g/kg
LC50 inhalation rat (mg/l)	2.18 mg/l/4h
ATE CLP (dust,mist)	2.180 mg/l/4h
Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Not classified Based on available data, the classification criteria are not met
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.
Symptoms/injuries after eye contact	: If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Northland Superline ExP 10W-30	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Superline ExP 10W-30	
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

Northland Superline Exp 10W-30

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations

: Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Waste disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Additional information

: Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals.

Ecology - waste materials

: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information

: No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the Canadian DSL (Domestic Substances List)

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the Canadian DSL (Domestic Substances List)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Northland Superline ExP 10W-30

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

15.2.2. National regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

U.S. - Massachusetts - Right To Know List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Date of issue : 01/17/2017

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
H304	May be fatal if swallowed and enters airways
H332	Harmful if inhaled

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks.



Northland Superline Exp 15W-40

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 01/18/2017

Revision date: 01/18/2017

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Northland Superline Exp 15W-40
Product code : F10J3
Other means of identification : API CK-4 Engine Oil

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : API CK-4 Engine Oil

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Spills of this product present a serious slipping hazard. Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals. When using high-pressure equipment, injection of product can occur. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Distillates, petroleum, solvent-dewaxed heavy paraffinic	(CAS No) 64742-65-0	0.1 - 5	Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined heavy paraffinic	(CAS No) 64741-88-4	0.1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined light paraffinic	(CAS No) 64741-89-5	0.1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304

Northland Superline Exp 15W-40

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest. In case of breathing difficulties administer oxygen.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.
- Symptoms/injuries after eye contact : If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Immediate treatment at a surgical emergency center is recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases flammable vapours. Leaks/ruptures in high pressure system can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain. This material can burn but will not readily ignite. Under fire conditions closed containers may rupture or explode.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor . Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

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6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Recover large spills by pumping (use an explosion proof or hand pump). Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product. Never use pressure to empty containers. Over pressure may rupture containers, cause serious injury, cause or accelerate fire.

Precautions for safe handling : Keep out of reach of children. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Ground/bond container and receiving equipment. Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances.

Incompatible materials : Strong acid. Base. Oxidizing agents.

Storage temperature : Store at ambient temperature

Heat and ignition sources : Remove all sources of ignition.

Storage area : Well-ventilated area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Use ventilation to keep exposure to airborne contaminants below the exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles.



Hand protection : Wear protective gloves, rubber gloves.

Eye protection : Chemical goggles or safety glasses, with side-shields.

Skin and body protection : Long sleeved protective clothing. Wear rubber boots.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Protection factors vary depending upon the type of respirator used. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).

Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.

Other information : Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear to light amber.
Odour	: Petroleum characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 320 °C (608 °F)
Flash point	: 236 °C (457 °F) Test method: COC
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Lower Flammability Limit (LFL) 0.9 Upper Flammability Limit (UFL) 7.0
Vapour pressure	: < 0.01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.872 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: No data available
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 114 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal temperatures and pressures.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. unburned hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2.18 mg/l/4h
ATE CLP (dust,mist)	2.180 mg/l/4h
Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LD50 oral rat	> 5000 mg/kg

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Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LD50 dermal rabbit	> 5 g/kg
LC50 inhalation rat (mg/l)	2.18 mg/l/4h
ATE CLP (dust,mist)	2.180 mg/l/4h
Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Not classified Based on available data, the classification criteria are not met
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.
Symptoms/injuries after eye contact	: If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Northland Superline ExP 15W-40	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Superline ExP 15W-40	
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Sewage disposal recommendations : Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.
- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.
- Additional information : Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals.
- Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the Canadian DSL (Domestic Substances List)

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the Canadian DSL (Domestic Substances List)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

15.2.2. National regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

U.S. - Massachusetts - Right To Know List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Date of issue : 01/17/2017

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
H304	May be fatal if swallowed and enters airways
H332	Harmful if inhaled

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks.



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Date of issue: 12/17/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Northland Synergy Synthetic Gear Lubricant SAE 75W90
Product code : 86T5

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Synthetic Gear Lubricant

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Skin Sens. 1 H317

2.2. Label elements

GHS-US labelling
Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H317 - May cause an allergic skin reaction
Precautionary statements (GHS-US) : P261 - Avoid breathing mist, spray, vapours, fume, gas
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - If on skin: Wash with plenty of water
P321 - Specific treatment (see on this label)
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

other hazards which do not result in classification : Spills of this product present a serious slipping hazard.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
N-Phenyl-1-naphthylamine	(CAS No) 90-30-2	0.3 - 1	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317
Phosphoric acid, bis(2-ethylhexyl) ester	(CAS No) 298-07-7	1 - 2	Acute Tox. 4 (Dermal), H312 Skin Sens. 1, H317
Polysulfides, di-tert-butyl	(CAS No) 68937-96-2	4 - 10	Skin Sens. 1B, H317

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible)..
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. When using high-pressure equipment, injection of product can occur. If material is injected under the skin, seek medical attention immediately. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : At elevated temperatures or in enclosed spaces, product mist or vapors may irritate the mucous membranes of the nose, the throat, bronchi, and lungs.
- Symptoms/injuries after skin contact : May cause an allergic skin reaction. Prolonged/repetitive skin contact may cause skin defatting or dermatitis.
- Symptoms/injuries after eye contact : smoke or mist generated during use may cause eye irritation. Symptoms include stinging, watering, redness, and swelling.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.
- Other information : On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a water spray. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Stop leak if safe to do so. Spills of this product present a serious slipping hazard. Avoid breathing mist or vapor. Avoid contact with skin, eyes and clothes. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- 6.1.1. For non-emergency personnel
- Emergency procedures : Evacuate unnecessary personnel.
- 6.1.2. For emergency responders
- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

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6.3. Methods and material for containment and cleaning up

- Methods for cleaning up
- : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. For larger spills, dike area and pump into waste containers. Take precautionary measures against static discharge. Use explosion-proof equipment. Collect all waste in suitable and labelled containers and dispose according to local legislation. Store away from other materials. Consult the appropriate authorities about waste disposal. This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling
- : Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin, eyes and clothing. Avoid breathing mist or vapor. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Read label before use. Keep container closed when not in use.
- Hygiene measures
- : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures
- : Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present. Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.
- Storage conditions
- : Keep out of reach of children. Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Keep away from open flames, hot surfaces and sources of ignition. Store containers in an upright manner to prevent leakage.
- Incompatible materials
- : Strong oxidizing agents. Strong acids, bases.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

- Appropriate engineering controls
- : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment
- : Avoid all unnecessary exposure. Protective goggles. Gloves. Protective clothing. For certain operations, additional Personal Protection Equipment (PPE) may be required.



- Hand protection
- : Wear suitable gloves resistant to chemical penetration. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- Eye protection
- : Chemical goggles and/or face shields are required to prevent potential eye contact, irritation or injury.
- Respiratory protection
- : In case of insufficient ventilation, wear suitable respiratory equipment.
- Other information
- : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state
- : Liquid
- Colour
- : Amber.
- Odour
- : Characteristic.
- Odour threshold
- : No data available
- pH
- : No data available

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Melting point	: No data available
Freezing point	: -45 °C (-49 °F)
Boiling point	: No data available
Flash point	: >= 215 °C (420 °F) (ASTM D92)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.891 g/cm ³
Solubility	: Water: Insoluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 15 mm ² /s (100 °C) (ASTM D445)
Viscosity, dynamic	: > 90000 mPa.s (-40.0 °C)
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat, open flame, sparks, hot surfaces, ignition sources, elevated temperature . Moisture.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids, bases.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

N-Phenyl-1-naphthylamine (90-30-2)	
LD50 oral rat	1625 mg/kg
ATE CLP (oral)	1625,000 mg/kg bodyweight
Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
LD50 oral rat	4940 µl/kg
LD50 dermal rabbit	1250 µl/kg
ATE (dermal)	1100,000 mg/kg bodyweight
Polysulfides, di-tert-butyl (68937-96-2)	
LD50 oral rat	6500 mg/kg
ATE (oral)	6500,000 mg/kg bodyweight

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: At elevated temperatures or in enclosed spaces, product mist or vapors may irritate the mucous membranes of the nose, the throat, bronchi, and lungs.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction. Prolonged/repetitive skin contact may cause skin defatting or dermatitis.
Symptoms/injuries after eye contact	: Smoke or mist generated during use may cause eye irritation. Symptoms include stinging, watering, redness, and swelling.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
LC50 fishes 1	20 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
Polysulfides, di-tert-butyl (88937-96-2)	
LC50 fishes 1	250 - 500 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	> 1000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])

12.2. Persistence and degradability

Northland Synergy Synthetic Gear Lubricant SAE 75W90	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Synergy Synthetic Gear Lubricant SAE 75W90	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with applicable local, national and international regulations. Do not allow to enter into surface water or drains. Consult the appropriate authorities about waste disposal.
Additional information	: Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Do not re-use empty containers. Empty container retains product residue.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Northland Synergy Synthetic Gear Lubricant SAE 75W90

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

N-Phenyl-1-naphthylamine (90-30-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Northland Synergy Synthetic Gear Lubricant SAE 75W90

WHMIS Classification

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

N-Phenyl-1-naphthylamine (90-30-2)

Listed on the Canadian DSL (Domestic Substances List)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

N-Phenyl-1-naphthylamine (90-30-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

15.2.2. National regulations

N-Phenyl-1-naphthylamine (90-30-2)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Listed on the Canadian Ingredient Disclosure List

Northland Synergy Synthetic Gear Lubricant SAE 75W90

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Polysulfides, di-tert-butyl (68937-96-2)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

N-Phenyl-1-naphthylamine (90-30-2)

U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Polysulfides, di-tert-butyl (68937-96-2)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

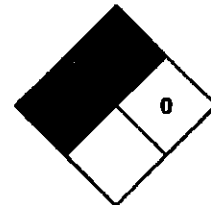
SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Skin Sens. 1	Sensitisation — Skin, category 1
H302	Harmful if swallowed
H317	May cause an allergic skin reaction

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 1 - Must be preheated before ignition can occur.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability : 1 Slight Hazard
Physical : 0 Minimal Hazard

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks



Northland Synergy Synthetic SRO 150

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 03/10/2015

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Trade name : Synergy Synthetic SRO 150
Product code : 86Z7
Other means of identification : Synthetic Gear Lubricant

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Synthetic Gear Lubricant

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Northland Synergy Synthetic SRO 150

Full text of H-phrases: see section 16

3.2. Mixture

This product does not contain any substance presented in above cut-off concentration limits that classified as hazardous in accordance with paragraph (d) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.

Northland Synergy Synthetic SRO 150

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

Symptoms/injuries after inhalation : In the event of insufficient ventilation: May produce an allergic reaction.

Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.

Symptoms/injuries after eye contact : Oil Mist. May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.

Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product.

Northland Synergy Synthetic SRO 150

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

- Precautions for safe handling** : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed.
- Hygiene measures** : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions** : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed.
- Incompatible materials** : Strong acid. Base. Oxidizing agents.
- Storage temperature** : Store at ambient temperature
- Heat and ignition sources** : Remove all sources of ignition.
- Storage area** : Protect against direct sunlight.
- Special rules on packaging** : Correctly labelled.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

- Appropriate engineering controls** : A washing facility/water for eye and skin cleaning purposes should be present. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment** : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.



- Hand protection** : Wear protective gloves, rubber gloves.
- Eye protection** : Chemical goggles or safety glasses. with side-shields.
- Skin and body protection** : Chemical resistant suit. Wear rubber boots.
- Respiratory protection** : Work in well-ventilated zones or use proper respiratory protection.
- Thermal hazard protection** : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls** : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information** : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state** : Liquid
- Colour** : Clear to light amber.
- odour** : Petroleum. characteristic.
- Odour threshold** : No data available
- pH** : No data available
- Relative evaporation rate (butylacetate=1)** : No data available
- Melting point** : No data available
- Freezing point** : No data available
- Boiling point** : > 325 °C (617 °F)
- Flash point** : 263 °C (505 °F)
- Self ignition temperature** : No data available
- Decomposition temperature** : No data available

Northland Synergy Synthetic SRO 150

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Vapour pressure	: < 0,01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.888 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 150 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2 Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: May produce an allergic reaction.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Oil Mist. May cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.
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Northland Synergy Synthetic SRO 150

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

12.2. Persistence and degradability

Northland Synergy Synthetic SRO 150	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Synergy Synthetic SRO 150	
Log Pow	Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Additional information : Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Northland Synergy Synthetic SRO 150

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

15.2.2. National regulations

No additional information available

15.3 US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks



Northland Synergy Synthetic SRO 220

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 03/10/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Substance
Trade name : Synergy Synthetic SRO 220
Product code : 86Z6
Other means of identification : Synthetic Gear Lubricant

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Synthetic Gear Lubricant

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Northland Synergy Synthetic SRO 220

Full text of H-phrases: see section 16

3.2. Mixture

This product does not contain any substance presented in above cut-off concentration limits that classified as hazardous in accordance with paragraph (d) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.

Northland Synergy Synthetic SRO 220

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

Symptoms/injuries after inhalation : In the event of insufficient ventilation: May produce an allergic reaction.

Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.

Symptoms/injuries after eye contact : Oil Mist. May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.

Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product.

Northland Synergy Synthetic SRO 220

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

- Precautions for safe handling : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed.
- Incompatible materials : Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Protect against direct sunlight.
- Special rules on packaging : Correctly labelled.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.



- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Chemical goggles or safety glasses, with side-shields.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection.
- Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Clear to light amber.
- odour : Petroleum, characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : > 325 °C (617 °F)
- Flash point : 268 °C (515 °F)
- Self ignition temperature : No data available
- Decomposition temperature : No data available

Northland Synergy Synthetic SRO 220

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Vapour pressure	: < 0.01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.890 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 220 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: May produce an allergic reaction.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Oil Mist. May cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.
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Northland Synergy Synthetic SRO 220

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

12.2. Persistence and degradability

Northland Synergy Synthetic SRO 220

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

Northland Synergy Synthetic SRO 220

Log Pow	Base oil hydrocarbons: log Kow > 4 (estimate)
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Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
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Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Additional information : Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Northland Synergy Synthetic SRO 220

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

15.2.2. National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012)

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Northland Talar 215

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 11/21/2013 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Trade name : Talar 215
Product code : 40T4
Other means of identification : Hydraulic Fluid

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Hydraulic Fluid

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Northland Talar 215

Full text of H-phrases: see section 16

3.2. Mixture

This product does not contain any substance presented in above cut-off concentration limits that classified as hazardous in accordance with paragraph (d) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.

Northland Talarum 215

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

Symptoms/injuries after inhalation : In the event of insufficient ventilation: May produce an allergic reaction.

Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.

Symptoms/injuries after eye contact : Oil Mist. May cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.

Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product.

Northland Talarum 215

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

- Precautions for safe handling : Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed.
- Incompatible materials : Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Protect against direct sunlight.
- Special rules on packaging : Correctly labelled.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles.



- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Chemical goggles or safety glasses, with side-shields.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection.
- Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Clear to light amber.
- odour : Petroleum. characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : > 325 °C (617 °F)
- Flash point : 227 °C (440 °F)
- Self ignition temperature : No data available
- Decomposition temperature : No data available

Northland Talar 215

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Vapour pressure	: < 0.01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0.870 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 46 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: May produce an allergic reaction.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Oil Mist. May cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.
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Northland Talar 215

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

12.2. Persistence and degradability

Northland Talar 215	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Talar 215	
Log Pow	Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Additional information : Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Northland Talar 215

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

15.2.2. National regulations

No additional information available

15.3 US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

SDS US (GHS HazCom 2012)

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Northland Talar Extreme

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 10/10/2013 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Talar Extreme
Product code : 40T2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : VHVI Hydraulic Fluid

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

SUPPLIER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Eye Irrit. 2A H319

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US)

: Warning

Hazard statements (GHS-US)

: H319 - Causes serious eye irritation

Precautionary statements (GHS-US)

: P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective gloves, protective clothing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

other hazards which do not result in classification

: Spills of this product present a serious slipping hazard. This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Northland Talar Extreme

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Name	Product Identifier	%	GHS-US classification
Poly long-chain alkyl methacrylate		1 - 3	Eye Irrit. 2A, H319

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : Excess inhalation might cause risk of chemicals pneumonitis.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
- Symptoms/injuries after eye contact : Oil Mist. Contact may cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use media as appropriate for surrounding material
. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases vapours. Gas/vapours, flammable.

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain. Take any precaution to avoid mixing with combustibles ...
- 6.1.1. For non-emergency personnel
- Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor . Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.
- 6.1.2. For emergency responders
- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal.

Northland Tamar Extreme

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Special danger of slipping by leaking/spilling product.
- Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Technical ventilation of workplace. Ensure the ventilation system is regularly maintained and tested. Emergency shower installed. A washing facility/water for eye and skin cleaning purposes should be present.
- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances.
- Incompatible materials : sawdust. Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Protect against direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Emergency shower installed. Mechanical ventilation should be used in low or enclosed places.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles.



- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Wear chemical splash goggle. Chemical goggles or safety glasses.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Wear respiratory protection.
- Thermal hazard protection : Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Clear Blue.
- Odour : Petroleum. Characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : 199 °C 390 °F
- Self ignition temperature : No data available

Northland Talar Extreme

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: Negligible vapour pressure at ambient conditions
Relative vapour density at 20 °C	: > 10
Relative density	: 0.863 g/cm ³ at 15.6 °C (104 °F)
Solubility	: Water: < 0.1 % insoluble Organic solvent: completely soluble
Log Pow	: No data available
Log Kow	: > 4
Viscosity, kinematic	: 32 cSt at 40 °C (104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

8.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Hazardous polymerisation does not occur.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. sawdust. Oxidizing agents, strong.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not Classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Excess inhalation might cause risk of chemicals pneumonitis.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: Oil mist contact may cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May be toxic to aquatic life.

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

Northland Talar Extreme

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

12.2. Persistence and degradability

Northland Talar Extreme	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Talar Extreme	
Log Kow	> 4
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)
Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Northland Talarum Extreme

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

15.2.2. National regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
H319	Causes serious eye irritation

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks



TANNERGAS®

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 01/01/2021 Supersedes: 06/25/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product name : TANNERGAS®
Product form : Mixture
Product code : UN1993
Other means of identification : FREEZE-BAN, METHANOL SOLUTION

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Anti-freeze for compressed air lines. Not for human or animal consumption.

1.3. Details of the supplier of the safety data sheet

Tanner Systems, Inc.
625 - 19th Avenue N.E
P.O. Box 488
St. Joseph, MN 56374, U.S.A.
Telephone: FACTORY, 800-461-6454
Email: info@tannersystems.com
Website: www.tannersystems.com

1.4. Emergency telephone number

Emergency number : CHEMTREC, 800-424-9300 (24 Hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq.	2	H225
Acute Tox. (Oral)	3	H301
Acute Tox. (Dermal)	3	H311
Acute Tox. (Inhalation)	3	H331
Eye Irrit.	2A	319
STOT SE RE	1	H370

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

Danger

Hazard statements (GHS-US)

H225 - Highly flammable liquid and vapour
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H319 - Causes Serious Eye Irritation
H370 - Causes damage to organs

Precautionary statements (GHS-US)

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe fumes, mist, spray, vapours
P261 - Avoid breathing vapours, fume
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, protective gloves, protective clothing
P301+P310 - IF SWALLOWED: Immediately call a doctor, a poison center
P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

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Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P307+P311 - If exposed: Call a poison center/doctor
P308+P313 - If exposed or concerned: Get medical advice/attention
P311 - Call a doctor, a poison center
P312 - Call a doctor, a poison center if you feel unwell
P321 - Specific treatment (see first aid instructions on this label)
P330 - Rinse mouth
P361 - Take off immediately all contaminated clothing
P363 - Wash contaminated clothing before reuse
P370+P378 - In case of fire: Use dry extinguishing powder, carbon dioxide (CO2) to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Methyl alcohol	(CAS No) 67-56-1	60 - 100
2-Amino-2-methyl-1-propanol	(CAS No) 124-68-5	0.5 - 1.5

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes damage to organs. Toxic in contact with skin. Toxic if swallowed. Toxic if inhaled.

Symptoms/injuries after inhalation : Toxic if inhaled.

Symptoms/injuries after skin contact : Toxic in contact with skin.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.

Symptoms/injuries after ingestion : Toxic if swallowed.

Chronic symptoms : Causes damage to organs.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour. Vapours are heavier than air and may spread along floors. Vapours may travel long distances along ground before igniting/flashing back to vapour source.

Explosion hazard : Under fire conditions closed containers may rupture or explode.

Reactivity : Product may react with extinguishing media to produce toxic vapors or gases.

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5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Ventilate area. Keep upwind. Stop leak. No flames, no sparks. Eliminate all sources of ignition. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Prevent entry to sewers and public waters.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Exclude sources of ignition and ventilate the area. Waste from this product may be hazardous as defined under RCRA (40 CFR 261).

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapours. Use only in well-ventilated areas. Ensure proper electrical grounding procedures are in place. When opening drum give bung no more than one (1) turn and stop. Allow pressure to vent before proceeding.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, Recommended Practice on Static Electricity" or NFPA 70, "National Electric Code".

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep away from ignition sources. Store in a dry, cool and well-ventilated place designed for storage of flammable liquids. Use only D.O.T. approved containers.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters USA

Methyl alcohol (67-56-1)	
ACGIH TWA 200ppm	ACGIH STEL 250 ppm
OSHA PEL (TWA) 260 mg/m ³	OSHA PEL (TWA) 200ppm
OSHA PEL (STEL) 325 mg/m ³	OSHA PEL (STEL) 250ppm
2-Amino-2-methyl-1-propanol (124-68-5)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established

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Control parameters CANADA

ALBERTA OELs (Occupational Health and Safety Code, Schedule 1, table 2)		
Methyl alcohol (67-56-1)	STEL	328 mg/m ³
	TWA	250ppm, 262 mg/m ³ , 200 ppm
BRITISH COLUMBIA OELs (Occupational Exposure Limits for Chemical Substances, Occupational health and Safety Regulation 296/97, as amended)		
Methyl alcohol (67-56-1)	STEL	250 ppm
	TWA	200 ppm
MANITOBA OELs (Reg. 217/2006, The Workplace Safety and Health Act)		
Methyl alcohol (67-56-1)	STEL	250 ppm
	TWA	200 ppm
ONTARIO OELs (Control of Exposure to Biological or Chemical Agents)		
Methyl alcohol (67-56-1)	STEL	250 ppm
	TWA	200 ppm
QUEBEC OELs (Ministry of Labor – Regulation Respecting Occupational health and safety)		
Methyl alcohol (67-56-1)	STEL	328 mg/m ³
	TWA	250ppm, 262 mg/m ³ , 200 ppm

Exposure Guidelines – USA

ACGIH Threshold Limit : Skin Designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

Exposure Guidelines – CANADA

ALBERTA OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

BRITISH COLUMBIA OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

MANITOBA OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

ONTARIO OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

QUEBEC OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

SASKATCHEWAN OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

The following are recommendations only for the use of PPE. These recommendations can not anticipate the variety of workplaces where the product will be used, nor how the product will be used in a variety of applications and processes. In determining appropriate PPE and engineering controls, it is the duty of the employer / user to evaluate their use of this product in accordance with the requirements of the local jurisdiction, and, if necessary, in conjunction with a professional industrial hygienist.

8.2. Exposure controls

Appropriate engineering controls

- : Provide ventilation designed for combustible atmospheres. Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- : Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.



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Hand protection	: Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.
Eye protection	: Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.
Skin and body protection	: Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure. If there is a risk of liquid being splashed: Wear protective rubber clothing with splash guard. Impervious footwear must be worn.
Respiratory protection	: Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with gas filter (type A2). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Pale yellow.
Odor	: Slight alcohol.
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: 2.1
Melting point	: No data available
Freezing point	: -97.8 °C (-144°F)
Boiling point	: 64.5 °C (148°F)
Flash point	: 12 °C (54°F) [Method: TCC]
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 15 °C	: 1.105 (air=1)
Relative density @ 20°C (68°F)	: 0.791
Solubility	: Water: 100 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Product may react with extinguishing media to produce toxic vapors or gases.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Sparks. Heat. Open flame. Ignition sources.

10.5. Incompatible materials

Oxidizing agents. Acids. Bases. May be corrosive to lead and aluminum.

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10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Formaldehyde.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: Toxic if inhaled.

Methyl alcohol (67-56-1)	
LD50 oral rat	5628 mg/kg
LD50 dermal rabbit	15800 mg/kg
LC50 inhalation rat (mg/l)	83.2 mg/l/4h
LC50 inhalation rat (ppm)	64000 ppm/4h
ATE CLP (oral)	100.000 mg/kg bodyweight
ATE CLP (dermal)	300.000 mg/kg bodyweight
ATE CLP (gases)	700.000 ppmv/4h
ATE CLP (vapours)	3.000 mg/l/4h
ATE CLP (dust,mist)	0.500 mg/l/4h
2-Amino-2-methyl-1-propanol (124-68-5)	
LD50 oral rat	2900 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not Classified
Specific target organ toxicity (single exposure)	: Causes damage to organs.
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through repeated or long term exposure
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Toxic if inhaled.
Symptoms/injuries after skin contact	: Toxic in contact with skin.
Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion	: Toxic if swallowed.
Chronic symptoms	: Causes damage to organs.

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results	
METHYL ALCOHOL (CAS 67-56-1)			
Crustacea	EC50	Water Flea (Daphnia magna)	>1000 mg/l, 48 hours
Fish	LC50	Fathead Minnow (pimephales promelas)	>100 mg/l, 96 hours
2-Amino-2-methyl -1- propanol (CAS 124-68-5)			
Crustacea	EC50	Water Flea (Daphnia magna)	190mg/l, 48 hours
Fish	LC50	Lepomis macrochirus	193 mg/l, 96 hours
Algae	ErC50	Desmodesmus subspicatus	520 mg/l, 72 hours

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.
- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Refer to current EPA regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

Ground (US DOT) : UN1993 Flammable liquids, n.o.s., 3, II



Water (IMDG) : UN1993 Flammable liquids, n.o.s., 3, II



Air (IATA) : UN1993 Flammable liquids, n.o.s., 3, II



Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Air transport

- IATA Quantity Limitations Passenger and Cargo aircraft : 1L (Ltd Qty); 5L
- Packaging Instructions : Y341 (Ltd Qty); 353
- IATA Quantity Limitations Cargo aircraft only : 60L
- Packaging Instructions : 364

SECTION 15: Regulatory information

15.1. US Federal regulations

TANNERGAS®	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory	
Methyl alcohol (67-56-1)	
Listed on United States SARA Section 313	
CERCLA Reportable Quantity	5000 lb

15.2. International regulations

CANADA

TANNERGAS®	
All chemical substances in this product are listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	B2: Flammable Liquid DB2: Toxic Material Causing Other Toxic Effects

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Canada DSL Inventory: Registration Status

Methanol (CAS 67-56-1) Listed

Canada NPRI (Supplier Notification required): Listed Substance

TANNERGAS®

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (Revised January 1, 2021)

Controlled Drugs and Substances Act

Not Regulated

Export Control List (CEPA 1999, Schedule 3)

Not Listed

Greenhouse Gases

Not Listed

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

Methanol (CAS 67-56-1)

Precursor Control Regulations

Not Regulated

15.3. US State regulations

California Proposition 65

This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause reproductive toxicity

Methyl alcohol (67-56-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	Yes	No	No	

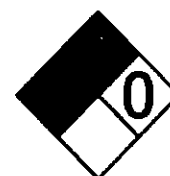
Methyl alcohol (67-56-1)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

2-Amino-2-methyl-1-propanol (124-68-5)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.
Revision date : 01/01/2021
Other information : Author: JRW

NFPA health hazard : 2 – May be harmful if inhaled or absorbed
NFPA fire hazard : 3 - Flammable liquid flash point below 100°F
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 2 Moderate Hazard – Temporary or minor injury may occur
*Chronic Hazard – Chronic (long-term) health effects may result from repeated overexposure

Flammability : 3 Serious Hazard

Physical : 0 Minimal Hazard

Personal Protection :

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

The above information is believed to be accurate and represents the best information currently available to us. Users should make their own investigations to determine the suitability of the information for their particular purposes. This document is intended as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Tanner Systems, Inc makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with the respect to the information set forth herein or the product to which the information refers. Accordingly, Tanner Systems, Inc will not be responsible for damages resulting from use of or reliance upon this information.



Northland Techata 1000

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 08/18/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Northland Techata 1000
Product code : 50M4

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Industrial Gear Oil

1.3. Details of the supplier of the safety data sheet

Northland Products
1000 Rainbow Drive
Waterloo, 50704 - USA

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Acute Tox. 4 (Inhalation:dust,mist) H332

2.2. Label elements

GHS-US labelling
Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H332 - Harmful if inhaled
Precautionary statements (GHS-US) : P261 - Avoid breathing dust, fume, mist, spray, vapours
P271 - Use only outdoors or in a well-ventilated area
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P312 - Call a doctor, a POISON CENTER if you feel unwell

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Spills of this product present a serious slipping hazard.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Distillates, petroleum, solvent-refined heavy paraffinic	(CAS No) 64741-88-4	45 - 50	Acute Tox. 4 (Inhalation:dust,mist), H332
Phosphoric acid, bis(2-ethylhexyl) ester	(CAS No) 298-07-7	0.2 - 0.4	Acute Tox. 4 (Dermal), H312 Skin Corr. 1C, H314 Eye Dam. 1, H318

Northland Techata 1000

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Assure fresh air breathing. Maintain an open airways. In case of breathing difficulties administer oxygen. Call a POISON CENTER or doctor/physician.
- First-aid measures after skin contact : Wipe off as much as possible (using a clean, soft, absorbent material). Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. When using high-pressure equipment, injection of product can occur. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Injection of petroleum hydrocarbons requires immediate medical attention. Heated product causes burns. Do not put ice on the burn. Burns caused by heated material must be treated clinically.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : Harmful if inhaled. At elevated temperatures or in enclosed spaces, product mist or vapors may irritate the mucous membranes of the nose, the throat, bronchi, and lungs.
High concentration of vapours may induce: headache, dizziness, drowsiness, nausea and vomiting.
- Symptoms/injuries after skin contact : Prolonged/repetitive skin contact may cause skin defatting or dermatitis. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Injection of petroleum hydrocarbons requires immediate medical attention. Heated product causes burns.
- Symptoms/injuries after eye contact : Oil Mist. May cause eye irritation.
- Symptoms/injuries after ingestion : Ingestion may cause nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases flammable vapours.

5.3. Advice for firefighters

- Precautionary measures fire : Approach from upwind. Vapours may travel long distances along ground before igniting/flashing back to vapour source. This material may burn but will not ignite readily.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product. Material will float and can be re-ignited on surface of water. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Toxic and irritating gases are released following thermal decomposition or combustion.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain.
- 6.1.1. For non-emergency personnel
- Emergency procedures : Evacuate unnecessary personnel.

Northland Techata 1000

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Approach from upwind. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Do not absorb with saw-dust or any other combustible absorbent material. Collect spillage. Store away from other materials.
- This material will float on water. In case of small spillages in closed waters, contain product with floating barriers or other equipment. Consult the appropriate authorities about waste disposal. Large spills: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Consult the appropriate authorities about waste disposal.
- For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Collect spills and put it into appropriated container. Ensure all national/local regulations are observed.
- The use of dispersants should be advised by an expert, and, if required, approved by local authorities. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations.
- This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Special danger of slipping by leaking/spilling product.
- Precautions for safe handling : Obtain special instructions before use. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed. Avoid splash filling of bulk volumes when handling hot liquid product.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Discard contaminated leather articles.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. Ground/bond container and receiving equipment. Use explosion-proof ventilating equipment. A washing facility/water for eye and skin cleaning purposes should be present.
- Ensure that all relevant regulations regarding handling and storage facilities of combustible products are followed.
- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep away from open flames, hot surfaces and sources of ignition. Keep container tightly closed. Store containers in an upright manner to prevent leakage. Keep locked up and out of reach of children.
- Incompatible materials : Strong reducing agents. Oxidizing agents.
- Heat and ignition sources : Remove all sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection


8.1. Control parameters

Northland Techata 1000

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

8.2. Exposure controls

- Appropriate engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. A washing facility/water for eye and skin cleaning purposes should be present. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. The following pictograms represent the minimum requirements for personal protective equipment. Gloves. Protective clothing. Protective goggles. For certain operations, additional Personal Protection Equipment (PPE) may be required.
- 
- Hand protection : Wear protective gloves. Nitrile-rubber protective gloves. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- Eye protection : Chemical goggles or safety glasses, with side-shields. Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Work in well-ventilated zones or use proper respiratory protection. If there is any possibility of uncontrolled emissions or entering in instances where the exposure levels are unknown use a full-facepiece positive-pressure, air-supplied respirator.
- Thermal hazard protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). Wear heat resistant boots and protective clothing when handling material at elevated temperatures.
- Environmental exposure controls : Avoid discharge to the environment. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Clear to light amber.
- Odour : Petroleum characteristic.
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : 268 °C (515 °F) Test method: COC
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapour pressure : < 0.01 mm Hg @ 37.8 °C (100 °F)
- Relative vapour density at 20 °C : > 1
- Relative density : 0.889 g/cm³ at 15.6 °C / 60 °F
- Solubility : Water: insoluble
Organic solvent: completely soluble
- Log Pow : Base oil hydrocarbons: log Kow > 4 (estimate)
- Log Kow : Base oil hydrocarbons: log Kow > 4 (estimate)
- Viscosity, kinematic : 221 cSt (40 °C/104 °F)
- Viscosity, dynamic : No data available
- Explosive properties : No data available
- Oxidising properties : No data available
- Explosive limits : No data available

9.2. Other information

No additional information available

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong reducing agents. Oxidizing agents.

10.6. Hazardous decomposition products

Toxic and irritating gases are released following thermal decomposition or combustion. Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2.18 mg/l/4h
ATE CLP (dust,mist)	2.180 mg/l/4h

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
LD50 oral rat	4940 µl/kg
LD50 dermal rabbit	1250 µl/kg
ATE CLP (dermal)	1100.000 mg/kg bodyweight

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Harmful if inhaled. At elevated temperatures or in enclosed spaces, product mist or vapors may irritate the mucous membranes of the nose, the throat, bronchi, and lungs. High concentration of vapours may induce: headache, dizziness, drowsiness, nausea and vomiting.
Symptoms/injuries after skin contact	: Prolonged/repetitive skin contact may cause skin defatting or dermatitis. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Injection of petroleum hydrocarbons requires immediate medical attention. Heated product causes burns.
Symptoms/injuries after eye contact	: Oil Mist. May cause eye irritation.
Symptoms/injuries after ingestion	: Ingestion may cause nausea, vomiting and diarrhea.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment.

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Northland Techata 1000

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Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
LC50 fishes 1	20 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability

Northland Techata 1000	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Techata 1000	
Log Pow	Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Additional information : Used oil, may contain harmful impurities. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Northland Techata 1000	
SARA Section 311/312 Hazard Classes	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

Northland Techata 1000

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the Canadian DSL (Domestic Substances List)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Distillates, petroleum, solvent-refined heavy paraffinic (IP 346<3%) (64741-88-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC or 1999/45/EC

No additional information available

15.2.2. National regulations

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Phosphoric acid, bis(2-ethylhexyl) ester (298-07-7)

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1

Northland Techata 1000

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks.



LAMPLIGHT®

Lamplight Farms, Inc.
4900 N. Lilly Road
Menomonee Falls, WI 53051
1-800-645-5267
(262) 781-9590



Tiki® BiteFighter® Citronella & Cedar Torch Fuel

Filename: MSDS Tiki MO Bitefighter.doc

Revision Date: 5/8/08
Revision 0

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Tiki® BiteFighter® Citronella & Cedar Torch Fuel
SYNONYMS: White oil, Mineral Oil
MANUFACTURER: Lamplight Farms
ADDRESS: 4900 North Lilly Road, Menomonee Falls, WI 53051
(800) 645-5267 262-781-9590 (8:00 AM- 4:30 PM CST) M-F
EMERGENCY NUMBER: 1-800-308-7141 (Prosar)
For non-emergency and all other information call: 1-800-645-5267

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS Number</u>	<u>Weight %</u>
White Mineral Oil	8042-47-5	99 %
Ceder Oil	NA	.8%
Citronella Oil	NA	.2%

3. HAZARDS IDENTIFICATION

Emergency Overview

Water white, oily liquid. Mild hydrocarbon odor.

HEALTH HAZARD: MAY CAUSE EYE OR SKIN IRRITAION. High vapor concentrations may cause headache, stupor, dizziness, or irritation of throat and eyes

Potential Health Effects

EYES: Slightly irritating to the eyes.
SKIN: Repeated or prolonged contact can cause redness, irritation, and scaling of the skin (dermatitis). Normal care and personal hygiene should prevent skin effects.
INHALATION: Exposure to high concentration of vapors may result in headache.
INGESTION: Lung exposure to this product either by prolonged breathing of a mist or vomiting following ingestion, can lead to serious lung injury and possibly death.



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Menomonee Falls, WI 53051
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(See section 11 for Toxicological Information).

4. FIRST AID MEASURES

- EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, seek medical attention.
- SKIN:** Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash affected area with mild soap. Call a physician if irritation occurs.
- INHALATION:** Remove to fresh air. If not breathing, give artificial respiration and seek medical attention immediately. Oxygen should only be administered by trained personnel.
- INGESTION:** DO NOT INDUCE VOMITING. Seek medical advice immediately.

5. FIRE FIGHTING MEASURES

Flammable Properties

FLASH POINT / METHOD:

≥ 248°F (120° C) / Pensky-Martens

AUTOIGNITION TEMPERATURE:

Not Available

FLAMMABLE LIMITS IN AIR % BY VOLUME:

Not Available

FIRE AND EXPLOSION HAZARD:

Low fire hazard. Material must be heated before ignition will occur. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

FIRE FIGHTING INSTRUCTIONS:

Water spray, carbon dioxide, dry chemical, or alcohol compatible foam is recommended.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE OF A SPILL OR LEAK:

Evacuate the area and eliminate all sources of ignition. Contain the spill if possible. Material may be picked up with a solid sorbent. Dispose of only in accordance with local, state, and federal regulations.



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7. HANDLING AND STORAGE

Handling: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk. Evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe fumes / vapor / spray. Wear suitable protective clothing. If ingested, seek medical advice immediately.

Storage: Keep containers tightly closed. Store away from heat, sparks, open flames.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

No special ventilation requirements. Good general ventilation sufficient to control exposure to airborne contaminants.

Personal Protective Equipment

EYES:

When contact with liquid is possible, use a face shield and chemical goggles. Otherwise use safety glasses or goggles.

SKIN:

Chemical gloves should be worn to prevent repeated contact. If potential for significant exposure to liquid exists, use full protective clothing and chemical boots.

RESPIRATORY PROTECTION:

NIOSH-approved organic vapor air-purifying respirator, self contained breathing apparatus, or air-supplied respirators dependent on concentration.

Exposure Guidelines:

No exposure limit has been set for exposure to vapors for this product. However, Lamplight and its suppliers recommend the ACGIH/OSHA/NIOSH – recommended limit of 5 mg/m³ (8-hour TWA) for exposure to mists of this product.

PEL = Permissible Exposure Limits
TLV = Threshold Limit Value

TWA = Time Weighted Average (8hr.)
STEL = Short Term Exposure Limit (15 min.)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:
Clear, oily liquid

VISCOCITY:
3.4 cSt @ 104° F (40° C).



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ODOR:
Slight petroleum odor.

PHYSICAL STATE:
Liquid.

VAPOR PRESSURE (mm Hg.).
Not available

BOILING POINT:
Not Available

VAPOR DENSITY (Air=1).
Not available

MELTING POINT:
Not available

POUR POINT
≤ -27° F (-33°C)

FREEZE POINT:
Not available

SOLUBILITY IN WATER:
Insoluble in water

Relative Density
0.823 kg/L @ 59°F (15°C)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:

High Temperatures & high energy ignition sources

INCOMPATIBILITY WITH OTHER MATERIALS:

Reactive with oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS:

May release CO₂, smoke and irritating vapors when heated to decomposition.

HAZARDOUS POLYMERIZATION:

Will not occur

11. TOXICOLOGICAL INFORMATION

Toxicity Data

Test	Result	Route	Species
LD50	>5000 mg/kg	Oral	Rat
LD50	>2000 mg/kg	Dermal	Rabbit
LD50	>2300 mg/m ³ (4 hours)	Inhalation	Rat

Sensitisation

EYES: May cause mild, short lasting discomfort to eyes

SKIN: Mildly irritating to skin with prolonged exposure.

INHALATION: Negligible hazard at ambient temperatures.

INGESTION: Minimally toxic

12. ECOLOGICAL INFORMATION



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ECOTOXICOLOGICAL INFORMATION:
Not Available.

13. DISPOSAL CONSIDERATIONS

SPECIAL INSTRUCTIONS:

Evacuate the area and eliminate all sources of ignition. Contain the spill if possible. Material may be picked up with solid sorbent. Dispose of only in accordance with local state, and federal regulations.

REGULATORY INFORMATION:

Disposal should be in accordance with applicable regional, national and local laws and regulations.

EMPTY CONTAINERS:

Empty containers retain product residue (liquid and/or vapor) can be dangerous. DO NOT PRESSURIZE, CUT WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

14. TRANSPORT INFORMATION

DOT DESCRIPTION:

Not regulated for land transport.

INTERNATIONAL INFORMATION:

Vessel (IMDG): Not regulated
Air (IATA): Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

OSHA HAZARD COMMUNICATION STANDARD CLASSIFICATION:

Nonhazardous as defined by the OSHA Hazard Communication Standard.

TSCA INVENTORY LISTING:

<u>Component</u>	<u>CAS Number</u>
White mineral oil	8042-47-5



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SARA 311/312 CLASSIFICATION:

Nonhazardous according to SARA 311/312.

SARA 313 CHEMICALS:

Contains no chemicals subject to SARA 313 reporting.

16. OTHER INFORMATION

<u>Hazard Ratings</u>	<u>NFPA</u>	<u>HMIS</u>
Health:	1	1
FLAMMABILITY:	1	1
REACTIVITY:	0	0

Revision Summary

<u>Date</u>	<u>Description</u>
May 8, 2008	Document created.

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Safety Data Sheet

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Document Group:	16-6445-7	Version Number:	14.01
Issue Date:	10/12/21	Supersedes Date:	04/16/21

SECTION 1: Identification

1.1. Product identifier

3M™ General Trim Adhesive, 08088

Product Identification Numbers

60-4550-3005-0, 60-4550-4615-5, 60-4550-4629-6, 60-4550-4837-5, 60-4550-5618-8, 60-4551-0220-6, 60-9800-4516-9, 60-9801-0537-7
7000120001, 7100166281

1.2. Recommended use and restrictions on use

Recommended use

Automotive, Automotive trim adhesive., High strength adhesive for bonding automotive materials (carpeting, fabrics, plastics) to metal and other surfaces.

Restrictions on use

Not recommended for bonding polystyrene foam.

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive Aftermarket
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification

Flammable Aerosol: Category 1.

Gas Under Pressure: Liquefied gas.

Serious Eye Damage/Irritation: Category 2A.

Reproductive Toxicity: Category 1B.

Simple Asphyxiant.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements

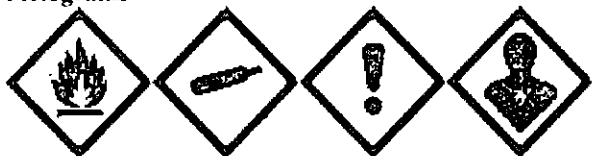
Signal word

Danger

Symbols

Flame | Gas cylinder | Exclamation mark | Health Hazard |

Pictograms



Hazard Statements

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes serious eye irritation.

May cause respiratory irritation.

May cause drowsiness or dizziness.

May damage fertility or the unborn child.

May displace oxygen and cause rapid suffocation.

Causes damage to organs:

cardiovascular system |

Precautionary Statements

General:

Keep out of reach of children.

Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see Notes to Physician on this label).

Storage:

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Dimethyl Ether	115-10-6	30 - 60 Trade Secret *
METHYL ACETATE	79-20-9	15 - 40 Trade Secret *
Non-volatile Components (NJTSRN 04499600-7375)	Trade Secret*	10 - 20 Trade Secret *
Cyclohexane	110-82-7	7 - 13 Trade Secret *
1,1-Difluoroethane	75-37-6	1 - 5 Trade Secret *
Acetone	67-64-1	< 2 Trade Secret *
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	64742-48-9	0.5 - 1.5 Trade Secret *
HYDROTREATED LIGHT PETROLEUM DISTILLATES	64742-47-8	0.5 - 1.5 Trade Secret *
Toluene	108-88-3	<= 0.75 Trade Secret *

NJTS or NJTSRN: New Jersey Trade Secret Registry Number.

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. Get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance

Aldehydes
Formaldehyde
Carbon monoxide
Carbon dioxide

Condition

During Combustion
During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcin. Ototoxicant
Toluene	108-88-3	OSHA	TWA:200 ppm;CEIL:300 ppm	
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	OSHA	TWA:1050 mg/m3(300 ppm)	
Dimethyl Ether	115-10-6	AIHA	TWA:1880 mg/m3(1000 ppm)	
Kerosine (petroleum)	64742-47-8	ACGIH	TWA(as total hydrocarbon vapor, non-aerosol):200 mg/m3	A3: Confirmed animal carcin., SKIN
Acetone	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human carcin
Acetone	67-64-1	OSHA	TWA:2400 mg/m3(1000 ppm)	
1,1-Difluoroethane	75-37-6	AIHA	TWA:2700 mg/m3(1000 ppm)	
METHYL ACETATE	79-20-9	ACGIH	TWA:200 ppm;STEL:250 ppm	
METHYL ACETATE	79-20-9	OSHA	TWA:610 mg/m3(200 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls**8.2.1. Engineering controls**

Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Full Face Shield

Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective

clothing.

Gloves made from the following material(s) are recommended: Fluoroelastomer
Nitrile Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece supplied-air respirator

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state
Color

Liquid
Colorless

Specific Physical Form:

Aerosol

Odor

Sweet Odor, Fruity Odor

Odor threshold

No Data Available

pH

Not Applicable

Melting point

No Data Available

Boiling Point

No Data Available

Flash Point

-40 °F [*Test Method*:Tagliabue Closed Cup]

Evaporation rate

1.9 [*Ref Std*:ETHER=1]

Flammability (solid, gas)

Not Applicable

Flammable Limits(LEL)

No Data Available

Flammable Limits(UEL)

No Data Available

Vapor Pressure

No Data Available

Vapor Density

2.97 [*Ref Std*:AIR=1]

Density

0.781 g/ml [*Details*:Refers to density of the liquid]

Specific Gravity

0.781 [*Ref Std*:WATER=1]

Solubility in Water

Nil

Solubility- non-water

No Data Available

Partition coefficient: n-octanol/ water

No Data Available

Autoignition temperature

No Data Available

Decomposition temperature

No Data Available

Viscosity

No Data Available

Hazardous Air Pollutants

0.021 lb HAPS/lb solids [*Test Method*:Calculated]

Molecular weight

Not Applicable

Volatile Organic Compounds

54.9 % weight [*Test Method*:calculated per CARB title 2]

Percent volatile

87.2 % weight

VOC Less H₂O & Exempt Solvents

460.9 g/l [*Test Method*:calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

Sparks and/or flames

10.5. Incompatible materials

Strong oxidizing agents

Alkali and alkaline earth metals

10.6. Hazardous decomposition products**Substance****Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects**Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Single exposure, above recommended guidelines, may cause: Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Dimethyl Ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
METHYL ACETATE	Dermal	Rat	LD50 > 2,000 mg/kg
METHYL ACETATE	Inhalation-Vapor (4 hours)	Rat	LC50 > 49 mg/l
METHYL ACETATE	Ingestion	Rat	LD50 > 5,000 mg/kg
Cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
Cyclohexane	Inhalation-Vapor (4 hours)	Rat	LC50 > 32.9 mg/l
Cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
Non-volatile Components (NJTSRN 04499600-7375)	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Non-volatile Components (NJTSRN 04499600-7375)	Ingestion	Rat	LD50 > 2,000 mg/kg
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-Vapor (4 hours)	Rat	LC50 76 mg/l
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
1,1-Difluoroethane	Inhalation-Gas (4 hours)	Rat	LC50 > 437,000 ppm
1,1-Difluoroethane	Ingestion	Rat	LD50 > 1,500 mg/kg
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	Inhalation-Vapor		LC50 estimated to be 20 - 50 mg/l
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Inhalation-Vapor	Professional judgement	LC50 estimated to be 20 - 50 mg/l
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	Dermal	Rabbit	LD50 > 5,000 mg/kg
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Dermal	Rabbit	LD50 > 5,000 mg/kg
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	Ingestion	Rat	LD50 > 5,000 mg/kg
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Ingestion	Rat	LD50 > 5,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
METHYL ACETATE	Rabbit	No significant irritation
Cyclohexane	Rabbit	Mild irritant
Non-volatile Components (NJTSRN 04499600-7375)	In vitro data	No significant irritation
Acetone	Mouse	Minimal irritation
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	Rabbit	Minimal irritation
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Rabbit	Minimal irritation
Toluene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
METHYL ACETATE	Rabbit	Moderate irritant
Cyclohexane	Rabbit	Mild irritant
Non-volatile Components (NJTSRN 04499600-7375)	In vitro data	No significant irritation
Acetone	Rabbit	Severe irritant
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	Rabbit	Mild irritant
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Rabbit	Mild irritant
Toluene	Rabbit	Moderate irritant

Skin Sensitization

Name	Species	Value
METHYL ACETATE	Human	Not classified
Non-volatile Components (NJTSRN 04499600-7375)	Multiple animal species	Not classified
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	Guinea pig	Not classified
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Guinea pig	Not classified
Toluene	Guinea pig	Not classified

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Dimethyl Ether	In Vitro	Not mutagenic
Dimethyl Ether	In vivo	Not mutagenic
METHYL ACETATE	In Vitro	Not mutagenic
METHYL ACETATE	In vivo	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Non-volatile Components (NJTSRN 04499600-7375)	In Vitro	Not mutagenic
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,1-Difluoroethane	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,1-Difluoroethane	In vivo	Some positive data exist, but the data are not sufficient for classification
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	In Vitro	Not mutagenic
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	In vivo	Not mutagenic
HYDROTREATED LIGHT PETROLEUM DISTILLATES	In Vitro	Not mutagenic
HYDROTREATED LIGHT PETROLEUM DISTILLATES	In vivo	Not mutagenic
Toluene	In Vitro	Not mutagenic

Toluene	In vivo	Not mutagenic
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Carcinogenicity

Name	Route	Species	Value
Dimethyl Ether	Inhalation	Rat	Not carcinogenic
Acetone	Not Specified	Multiple animal species	Not carcinogenic
1,1-Difluoroethane	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
HYDROTREATED HEAVY NAPIITHA (PETROLEUM)	Not Specified	Not available	Not carcinogenic
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Not Specified	Not available	Not carcinogenic
Toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Dimethyl Ether	Inhalation	Not classified for development	Rat	NOAEL 40,000 ppm	during organogenesis
Cyclohexane	Inhalation	Not classified for female reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not classified for male reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not classified for development	Rat	NOAEL 6.9 mg/l	2 generation
Acetone	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,700 mg/kg/day	13 weeks
Acetone	Inhalation	Not classified for development	Rat	NOAEL 5.2 mg/l	during organogenesis
1,1-Difluoroethane	Inhalation	Not classified for development	Rat	NOAEL 50,000 ppm	during organogenesis
HYDROTREATED HEAVY NAPIITHA (PETROLEUM)	Not Specified	Not classified for female reproduction	Not available	NOAEL NA	1 generation
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	Not Specified	Not classified for male reproduction	Not available	NOAEL NA	28 days
HYDROTREATED HEAVY NAPIITHA (PETROLEUM)	Not Specified	Not classified for development	Not applicable	NOAEL NA	during gestation
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Not Specified	Not classified for female reproduction	Rat	NOAEL Not available	1 generation
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Not Specified	Not classified for male reproduction	Rat	NOAEL Not available	28 days
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Not Specified	Not classified for development	Rat	NOAEL Not available	during gestation
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Dimethyl Ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 10,000 ppm	30 minutes
Dimethyl Ether	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
METHYL ACETATE	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
METHYL ACETATE	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
METHYL ACETATE	Inhalation	blindness	Not classified		NOAEL Not available	
METHYL ACETATE	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Cyclohexane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 hours
Acetone	Inhalation	liver	Not classified	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
1,1-Difluoroethane	Inhalation	cardiac sensitization	Causes damage to organs	Human and animal	NOAEL Not available	poisoning and/or abuse
1,1-Difluoroethane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL 100,000 ppm	
1,1-Difluoroethane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Dimethyl Ether	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 25,000 ppm	2 years
Dimethyl Ether	Inhalation	liver	Not classified	Rat	NOAEL	30 weeks

					20,000 ppm	
METHYL ACETATE	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	28 days
METHYL ACETATE	Inhalation	endocrine system hematopoietic system liver immune system kidney and/or bladder	Not classified	Rat	NOAEL 6.1 mg/l	28 days
Cyclohexane	Inhalation	liver	Not classified	Rat	NOAEL 24 mg/l	90 days
Cyclohexane	Inhalation	auditory system	Not classified	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Not classified	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 8.6 mg/l	30 weeks
Non-volatile Components (NJTSRN 04499600-7375)	Ingestion	heart gastrointestinal tract hematopoietic system liver nervous system eyes kidney and/or bladder	Not classified	Rat	NOAEL 331 mg/kg/day	90 days
Acetone	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	Not classified	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
1,1-Difluoroethane	Inhalation	hematopoietic system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 25,000 ppm	2 years
Toluene	Inhalation	auditory system eyes olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	nervous system	May cause damage to organs through prolonged or repeated	Human	NOAEL Not available	poisoning and/or abuse

			exposure			
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart liver kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks

Aspiration Hazard

Name	Value
Cyclohexane	Aspiration hazard
HYDROTREATED HEAVY NAPHTHA (PETROLEUM)	Aspiration hazard
HYDROTREATED LIGHT PETROLEUM DISTILLATES	Aspiration hazard
Toluene	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate uncured product in a permitted waste incineration facility. Facility must be capable of handling aerosol cans. As a

disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Flammable (gases, aerosols, liquids, or solids)

Gas under pressure

Health Hazards

Reproductive toxicity

Serious eye damage or eye irritation

Simple Asphyxiant

Specific target organ toxicity (single or repeated exposure)

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient
Cyclohexane

C.A.S. No
110-82-7

% by Wt
Trade Secret 7 - 13

Additional TSCA Information

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 4 Instability: 0 Special Hazards: None
Aerosol Storage Code: 2

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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Northland Universal Trandraulic Fluid

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 03/03/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : Universal Trandraulic Fluid
Product code : 40B0
Other means of identification : Universal TractorHydraulic Fluid

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Hydraulic Fluid

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Spills of this product present a serious slipping hazard. Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals. When using high-pressure equipment, injection of product can occur. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Distillates, petroleum, solvent-refined heavy paraffinic	(CAS No) 64741-88-4	0,1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined light paraffinic	(CAS No) 64741-89-5	0,1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-dewaxed heavy paraffinic	(CAS No) 64742-65-0	0,4 - 1,5	Asp. Tox. 1, H304
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	(CAS No) 88649-42-3	< 3	Not Classified

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. If material is injected under the skin, seek medical attention immediately.
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
- Symptoms/injuries after eye contact : If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Immediate treatment at a surgical emergency center is recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Leaks/ruptures in high pressure system can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain. This material can burn but will not readily ignite. Eliminate all ignition sources if safe to do so.
- 6.1.1. For non-emergency personnel
- Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor . Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.
- 6.1.2. For emergency responders
- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

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6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Recover large spills by pumping (use an explosion proof or hand pump). Prevent from spreading by making a barrier with sand, earth or other containment material. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product. Never use pressure to empty containers. Over pressure may rupture containers, cause serious injury, cause or accelerate fire.

Precautions for safe handling : Keep out of reach of children. Work in a well-ventilated area. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Ground/bond container and receiving equipment. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : A washing facility/water for eye and skin cleaning purposes should be present. Avoid static electricity discharges. Comply with applicable regulations. Ensure adequate ventilation. Ground/bond container and receiving equipment. Have equipments for fires and leaks readily available.

Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep container closed (and grounded).

Incompatible materials : Strong acid. Base. Oxidizing agents.

Storage temperature : Store at ambient temperature

Heat and ignition sources : Remove all sources of ignition. Store away from excessive heat. Light hydrocarbon vapours can build up in the headspace of containers.

Storage area : Protect against direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls : Use adequate general or local ventilation to keep airborne concentrations below the exposure limits.

Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles.



Hand protection : Wear protective gloves, rubber gloves.

Eye protection : Use splash goggles when eye contact due to splashing is possible. Chemical goggles or safety glasses. with side-shields.

Skin and body protection : Wear suitable protective clothing. Wear rubber boots.

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Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Protection factors vary depending upon the type of respirator used. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).
Environmental exposure controls	: Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear to light amber.
Odour	: Petroleum. Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 320 °C (608 °F)
Flash point	: 227 °C (440 °F) Test method: COC
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Lower Flammability Limit (LFL) 0.9 Upper Flammability Limit (UFL) 7.0
Vapour pressure	: < 0,01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0,872 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 58 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal temperatures and pressures.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. unburned hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
LD50 dermal rabbit	> 2000 mg/kg

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2,18 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5 g/kg
LC50 inhalation rat (mg/l)	2,18 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified (Conclusive but not sufficient for classification)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May be toxic to aquatic life.

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
EC50 Daphnia 1	1 - 1,5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	10,0 - 35,0 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Northland Universal Trandraulic Fluid	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland Universal Trandraulic Fluid	
Log Pow	Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

Northland Universal Trandraulic Fluid

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Do not re-use empty containers. Do not pressurize, cut, weld, braze solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Dispose in a safe manner in accordance with local/national regulations.

Additional information : Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Phosphorodithiolic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Phosphorodithiolic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

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EU-Regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

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Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)
U.S. - Massachusetts - Right To Know List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
H304	May be fatal if swallowed and enters airways
H332	Harmful if inhaled

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks



Northland J20C

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 03/03/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product form : Mixture
Trade name : J20C
Product code : 40E1
Other means of identification : Universal Tractor Hydraulic Fluid

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Hydraulic Fluid

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification
Not classified

2.2. Label elements

GHS-US labelling
No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Spills of this product present a serious slipping hazard. Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals. When using high-pressure equipment, injection of product can occur. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable
Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Distillates, petroleum, solvent-refined heavy paraffinic	(CAS No) 64741-88-4	0,1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined light paraffinic	(CAS No) 64741-89-5	0,1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-dewaxed heavy paraffinic	(CAS No) 64742-65-0	0,4 - 1,5	Asp. Tox. 1, H304
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	(CAS No) 68649-42-3	< 3	Not Classified

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. If material is injected under the skin, seek medical attention immediately.
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
- Symptoms/injuries after eye contact : If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Immediate treatment at a surgical emergency center is recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Leaks/ruptures in high pressure system can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protective equipment as required. Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain. This material can burn but will not readily ignite. Eliminate all ignition sources if safe to do so.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor . Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

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6.2. Environmental precautions

Prevent entry to sewers and public waters. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Recover large spills by pumping (use an explosion proof or hand pump). Prevent from spreading by making a barrier with sand, earth or other containment material. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

: Special danger of slipping by leaking/spilling product. Never use pressure to empty containers. Over pressure may rupture containers, cause serious injury, cause or accelerate fire.

Precautions for safe handling

: Keep out of reach of children. Work in a well-ventilated area. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Ground/bond container and receiving equipment. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

Hygiene measures

: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: A washing facility/water for eye and skin cleaning purposes should be present. Avoid static electricity discharges. Comply with applicable regulations. Ensure adequate ventilation. Ground/bond container and receiving equipment. Have equipments for fires and leaks readily available.

Storage conditions

: Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances. Keep container closed (and grounded).

Incompatible materials

: Strong acid. Base. Oxidizing agents.

Storage temperature

: Store at ambient temperature

Heat and ignition sources

: Remove all sources of ignition. Store away from excessive heat. Light hydrocarbon vapours can build up in the headspace of containers.

Storage area

: Protect against direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

: Use adequate general or local ventilation to keep airborne concentrations below the exposure limits.

Personal protective equipment

: Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles.



Hand protection

: Wear protective gloves, rubber gloves.

Eye protection

: Use splash goggles when eye contact due to splashing is possible. Chemical goggles or safety glasses, with side-shields.

Skin and body protection

: Wear suitable protective clothing. Wear rubber boots.

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Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Protection factors vary depending upon the type of respirator used. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).
Environmental exposure controls	: Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear to light amber.
Odour	: Petroleum. Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 320 °C (608 °F)
Flash point	: 227 °C (440 °F) Test method: COC
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Lower Flammability Limit (LFL) 0.9 Upper Flammability Limit (UFL) 7.0
Vapour pressure	: < 0,01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0,872 g/cm ³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent: completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 58 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal temperatures and pressures.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. Oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. unburned hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
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Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
LD50 dermal rabbit	> 2000 mg/kg

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2,18 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5 g/kg
LC50 inhalation rat (mg/l)	2,18 mg/l/4h
ATE (dust,mist)	2,180 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified (Conclusive but not sufficient for classification)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: In the event of insufficient ventilation: Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May be toxic to aquatic life.

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
EC50 Daphnia 1	1 - 1,5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	10,0 - 35,0 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

Northland J20C	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Northland J20C	
Log Pow	Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

Northland J20C

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according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Do not re-use empty containers. Do not pressurize, cut, weld, braze solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Dispose in a safe manner in accordance with local/national regulations.

Additional information : Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)
Listed on the Canadian DSL (Domestic Substances List) inventory.

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EU-Regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

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Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)
U.S. - Texas - Effects Screening Levels - Short Term

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)
U.S. - Massachusetts - Right To Know List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
H304	May be fatal if swallowed and enters airways
H332	Harmful if inhaled

SDS US (GHS HazCom 2012)

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of Northland Products Company's knowledge; however, Northland Products Company makes no warranty whatsoever, expressed or implied, of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. Northland Products Company assumes no responsibility for the injury to the recipient or to third party persons or for any damage to any property and recipient assumes all such risks

WD-40

Safety Data Sheet

1 - Identification

<p>Trade Name: WD-40 Aerosol</p> <p>Product Use: Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion</p> <p>Restrictions on Use: None identified</p> <p>SDS Date Of Preparation: August 2, 2021</p>	<p>Canadian Office: WD-40 Products [Canada] Ltd. P.O. Box 220 Toronto, Ontario M9C 4V3 Information Phone #: (416) 622-9881 Emergency Phone # 24 hr: Canutec: (613) 996-6666 - Designated for use only in the event of chemical emergencies involving a spill, leak, fire exposure or accident involving chemicals</p>
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2 - Hazards Identification

WHMIS 2015/GHS Classification:

Flammable Aerosol Category 1

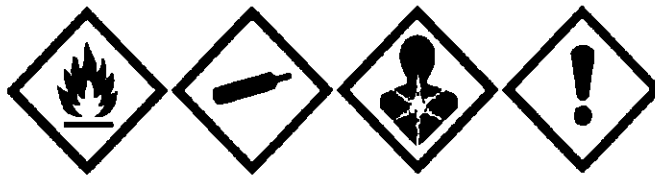
Gas Under Pressure: Compressed Gas

Aspiration Toxicity Category 1

Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the Consumer Chemicals and Containers Regulations (CCCR) which take precedence over WHMIS 2015 labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:



DANGER!

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

Avoid breathing mist or vapors.

Use only outdoors or in a well-ventilated area.

Response

IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor if you feel unwell.

Storage

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

Disposal

Dispose of contents and container in accordance with local and national regulations.

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	WHMIS 2015/ GHS Classification
Aliphatic Hydrocarbon	64742-47-8	50-70%	Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)
Petroleum Base Oil	Mixture	30-35%	Not Hazardous
Carbon Dioxide	124-38-9	2-3%	Simple Asphyxiant

4 – First Aid Measures

Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.

Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.

Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

Signs and Symptoms of Exposure: Harmful or fatal if swallowed. If swallowed, may be aspirated and cause lung damage. May cause eye irritation. Inhalation of mists or vapors may cause nasal and respiratory tract irritation and central nervous system effects such as headache, dizziness and nausea. Skin contact may cause drying of the skin.

Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

Specific Hazards Arising from the Chemical: Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon and hydrocarbons.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

Methods and Materials for Containment/Cleanup: Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure limits
Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m ³ TWA (Inhalable) ACGIH TLV (as mineral oil) 5 mg/m ³ TWA, 10 mg/m ³ STEL Canada- Québec (as oil mist, mineral) 5 mg/m ³ TWA, 10 mg/m ³ STEL Canada- Ontario (as oil mist, mineral) 1 mg/m ³ TWA British Columbia (as Oil mist-mineral, severely refined)
Carbon Dioxide	5000 ppm TWA, 30,000 ppm STEL ACGIH TLV 5000 ppm TWA, 30,000 ppm STEL Canada-Ontario 5000 ppm TWA, 30,000 ppm STEL Canada-Québec 5000 ppm TWA, 15,000 ppm STEL British Columbia

The Following Controls are Recommended for Normal Consumer Use of this Product

Appropriate Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact. Always spray away from your face.

Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Appropriate Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Skin Protection: Wear chemical resistant gloves.

Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved organic vapor/particulate or supplied air respirator in accordance with local and national regulations. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Appearance:	Light green to amber liquid	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	95-115 PSI @ 70°F
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	0.8 – 0.82 @ 60°F
Melting/Freezing Point:	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	361 - 369°F (183 - 187°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	122°F (49°C) Tag Open Cup (liquid)	Autoignition Temperature:	Not established
Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas):	Flammable Aerosol	Viscosity:	2.79-2.96 cSt @ 100°F
VOC:	65%	Pour Point:	-63°C (-81.4°F) ASTM D-97

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions

Chemical Stability: Stable

Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.

Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:

Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.

Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

Chronic Effects: None expected.

Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.

Reproductive Toxicity: None of the components is considered a reproductive hazard.

Numerical Measures of Toxicity:

Acute Toxicity Estimates: Oral > 5,000 mg/kg; Dermal >2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

12 – Ecological Information

Ecotoxicity: No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms

Persistence and Degradability: Components are readily biodegradable.

Bioaccumulative Potential: Bioaccumulation is not expected based on an assessment of the ingredients.

Mobility in Soil: No data available

Other Adverse Effects: None known

13 - Disposal Considerations

Aerosol containers should not be punctured, compacted in home trash compactors or incinerated. Empty containers may be disposed of through normal waste management options. Dispose of all waste product, absorbents, and other materials in accordance with applicable Federal, state and local regulations.

14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty

(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)

Canadian TDG Classification: Limited Quantity

IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY

ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

National Pollutant Release Inventory (NPRI): This product contains the following chemicals that are listed on the NPRI Substance List: Aliphatic Hydrocarbon (64742-47-8) 50-70%

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification.

16 – Other Information

HMIS Hazard Rating:

Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: August 2, 2021

Supersedes: April 29, 2020

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed by: I. Kowalski

Regulatory Affairs Dept.

1014100/No.0084106



SAFETY DATA SHEET

1. Identification

Product identifier White Lithium Grease

Other means of identification
Product Code No. 03080 (Item# 1003341)

Recommended use Lubricating grease

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information
Manufactured or sold by:

Company name CRC Industries, Inc.
Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300
Technical Assistance 800-521-3168
Customer Service 800-272-4620
24-Hour Emergency (CHEMTREC) 800-424-9300 (US)
703-527-3887 (International)
Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1
Gases under pressure Liquefied gas

Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2B
Reproductive toxicity (fertility) Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 2

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Collect spillage.

Storage

Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
liquefied petroleum gas		68476-86-8	30 - 40
2-methylpentane		107-83-5	20 - 30
distillates (petroleum), hydrotreated heavy naphthenic		64742-52-5	10 - 20
naphtha (petroleum), hydrotreated light		64742-49-0	10 - 20
n-hexane		110-54-3	3 - 5
zinc oxide		1314-13-2	< 1
2,2-dimethylbutane		75-83-2	< 0.3
2,3-dimethylbutane		79-29-8	< 0.3
3-methylpentane		96-14-0	< 0.3
calcium bis(dinonylnaphthalenesulphonate)		57855-77-3	< 0.3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Remove all possible sources of ignition in the surrounding area. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Protect containers from physical damage; do not drag, roll, slide, or drop. When moving containers, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport containers. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	PEL	5 mg/m ³	Mist.
		2000 mg/m ³	
		500 ppm	
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 mg/m ³	
		100 ppm	
n-hexane (CAS 110-54-3)	PEL	1800 mg/m ³	
		500 ppm	
zinc oxide (CAS 1314-13-2)	PEL	5 mg/m ³	Respirable fraction.
		5 mg/m ³	Fume.
		15 mg/m ³	Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2,2-dimethylbutane (CAS 75-83-2)	STEL	1000 ppm	
	TWA	500 ppm	
2,3-dimethylbutane (CAS 79-29-8)	STEL	1000 ppm	
	TWA	500 ppm	
2-methylpentane (CAS 107-83-5)	STEL	1000 ppm	
	TWA	500 ppm	
3-methylpentane (CAS 96-14-0)	STEL	1000 ppm	
	TWA	500 ppm	
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	5 mg/m ³	Inhalable fraction.
n-hexane (CAS 110-54-3)	TWA	50 ppm	
zinc oxide (CAS 1314-13-2)	STEL	10 mg/m ³	Respirable fraction.
	TWA	2 mg/m ³	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
2,2-dimethylbutane (CAS 75-83-2)	Ceiling	1800 mg/m ³	
	TWA	510 ppm	
		350 mg/m ³	
		100 ppm	
2,3-dimethylbutane (CAS 79-29-8)	Ceiling	1800 mg/m ³	
	TWA	510 ppm	
		350 mg/m ³	
		100 ppm	
2-methylpentane (CAS 107-83-5)	Ceiling	1800 mg/m ³	
	TWA	510 ppm	
		350 mg/m ³	
		100 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
3-methylpentane (CAS 96-14-0)	Ceiling	1800 mg/m3	
	TWA	510 ppm	
		350 mg/m3	
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	Ceiling	1800 mg/m3	
	STEL	10 mg/m3	Mist.
		5 mg/m3	Mist.
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	400 mg/m3	
	TWA	100 ppm	
		180 mg/m3	
n-hexane (CAS 110-54-3)	TWA	50 ppm	
		15 mg/m3	Dust.
		10 mg/m3	Fume.
zinc oxide (CAS 1314-13-2)	Ceiling	5 mg/m3	Fume.
	STEL	5 mg/m3	Dust.
	TWA	5 mg/m3	Dust.

Biological limit values

ACGIH Biological Exposure Indices Components

Components	Value	Determinant	Specimen	Sampling Time
n-hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion, without hydrolysis	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

n-hexane (CAS 110-54-3) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

n-hexane (CAS 110-54-3) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Polyvinyl chloride (PVC). Viton/butyl.

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form	Aerosol. Grease.
Color	Off-white.
Odor	Solvent.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-244.7 °F (-153.7 °C) estimated
Initial boiling point and boiling range	118.4 °F (48 °C) estimated
Flash point	< 0 °F (< -17.8 °C) Tag Closed Cup
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1 % estimated
Flammability limit - upper (%)	8 % estimated
Vapor pressure	2377.8 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.64 estimated
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	437 °F (225 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	98.4 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.
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Components	Species	Test Results
calcium bis(dinonylnaphthalenesulphonate) (CAS 57855-77-3)		
Acute		
Dermal		
LD50	Rabbit	> 20 g/kg
Oral		
LD50	Rat	> 5000 mg/kg
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
n-hexane (CAS 110-54-3)		
Acute		
Dermal		
LD50	Rabbit	> 1300 mg/kg
Oral		
LD50	Rat	15840 mg/kg
zinc oxide (CAS 1314-13-2)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes eye irritation.
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	Suspected of damaging fertility.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components		Species	Test Results
2-methylpentane (CAS 107-83-5)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1000 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	5000 mg/l, 96 hours
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
n-hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours
zinc oxide (CAS 1314-13-2)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	0.098 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	1.1 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2,2-dimethylbutane	3.82
2,3-dimethylbutane	3.42
2-methylpentane	3.74
3-methylpentane	3.6
n-hexane	3.9

Bioconcentration factor (BCF)

naphtha (petroleum), hydrotreated light	10 - 25000
zinc oxide	60690

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, LIMITED QUANTITY
Transport hazard class(es)	
Class	2
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.	
SARA 304 Emergency release notification	Not regulated.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated.	
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance		
n-hexane (CAS 110-54-3)		
zinc oxide (CAS 1314-13-2)		
CERCLA Hazardous Substance List (40 CFR 302.4)		
n-hexane (CAS 110-54-3)		Listed.
zinc oxide (CAS 1314-13-2)		Listed.
CERCLA Hazardous Substances: Reportable quantity		
n-hexane (CAS 110-54-3)		5000 LBS
Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.		

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

n-hexane (CAS 110-54-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)
liquefied petroleum gas (CAS 68476-86-8)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)

US. New Jersey Worker and Community Right-to-Know Act

2,2-dimethylbutane (CAS 75-83-2)
2,3-dimethylbutane (CAS 79-29-8)
2-methylpentane (CAS 107-83-5)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)
zinc oxide (CAS 1314-13-2)

US. Massachusetts RTK - Substance List

2,2-dimethylbutane (CAS 75-83-2)
2,3-dimethylbutane (CAS 79-29-8)
2-methylpentane (CAS 107-83-5)
3-methylpentane (CAS 96-14-0)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)
zinc oxide (CAS 1314-13-2)

US. Pennsylvania Worker and Community Right-to-Know Law

2,2-dimethylbutane (CAS 75-83-2)
2,3-dimethylbutane (CAS 79-29-8)
2-methylpentane (CAS 107-83-5)
3-methylpentane (CAS 96-14-0)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)
zinc oxide (CAS 1314-13-2)

US. Rhode Island RTK

distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-hexane (CAS 110-54-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

titanium dioxide (CAS 13463-67-7) Listed: September 2, 2011

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 100 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products	Not regulated (semi-solid lubricant)
VOC content (CA)	84.7 %
VOC content (OTC)	84.7 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	01-16-2015
Revision date	10-06-2017
Prepared by	Allison Yoon
Version #	03
Further information	CRC # 568F-G/1002591-1002592
HMIS® ratings	Health: 2* Flammability: 4 Physical hazard: 0 Personal protection: B
NFPA ratings	Health: 2 Flammability: 4 Instability: 0

NFPA ratings**Disclaimer**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision Information

Product and Company Identification: Product Codes
Physical & Chemical Properties: Multiple Properties
Transport Information: Agency Name, Packaging Type, and Transport Mode Selection
Other information, including date of preparation or last revision: Further information



PEAK Windshield Wash -30 °F

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : PEAK Windshield Wash -30 °F

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Windshield Wash Fluid

1.3. Details of the supplier of the safety data sheet

Old World Industries, LLC
4065 Commercial Ave.
Northbrook, IL 60062 - USA
T (847) 559-2000
www.oldworldind.com

1.4. Emergency telephone number

Emergency number : (800) 424-9300; (703) 527 3887 (International)
Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Acute Tox. 4 (Inhalation:dust,mist) H332
STOT SE 1 H370

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapor
H301+H311 - Toxic if swallowed or in contact with skin
H332 - Harmful if inhaled
H370 - Causes damage to organs (May cause blindness if swallowed)

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof ventilating, electrical, lighting equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe mist, spray, vapors
P264 - Wash affected areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear personal protective equipment as required
P301+P310 - If swallowed: Immediately call doctor/physician or poison center. Rinse mouth
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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P314 - Get medical advice/attention if you feel unwell
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use Foam, Sand, Dry powder, Carbon dioxide to extinguish
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% by wt	GHS-US classification
methanol	(CAS No) 67-56-1	30 - 35	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
propylene glycol	(CAS No) 57-55-6	<= 5	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow breathing of fresh air. Allow the victim to rest.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep in fireproof place. Keep container tightly closed.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

methanol (67-56-1)		
ACGIH	ACGIH TWA (ppm)	200 ppm (Skin)
ACGIH	ACGIH STEL (ppm)	250 ppm (Skin)
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
OSHA	OSHA PEL (TWA) (mg/m ³)	260 mg/m ³ (Skin)
OSHA	OSHA PEL (TWA) (ppm)	200 ppm (Skin)

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Respiratory protection : Wear appropriate mask.
Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Violet
Odor : alcohol
Odor threshold : No data available
Relative evaporation rate (butylacetate=1) : Greater then n-butyl acetate
Freezing point : No data available
Boiling point : 74 - 90 °C (166 - 194 °F)

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Flash point	: 30 °C (86 °F) Method Used: ETA 1010 CC
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: Heavier than air
Specific Gravity	: 0.949 - 0.951 @ 15 °C (59 °F)
Solubility	: Water: Complete
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: 6 - 36 vol %

9.2. Other information

VOC content : 35.00 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Keep away from ignition sources/sparks. Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Keep away from strong acids, strong bases and oxidizing agents.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation:dust,mist: Harmful if inhaled.

PEAK Windshield Wash -30 °F	
ATE US (oral)	100.00 mg/kg bodyweight
ATE US (dermal)	300.00 mg/kg bodyweight
ATE US (dust,mist)	1.50 mg/l/4h
methanol (67-56-1)	
LD50 oral rat	> 5,000.00 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	15,800.00 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	85.00 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	64,000.00 ppm/4h (Rat; Literature study)
ATE US (dermal)	15,800.00 mg/kg bodyweight
ATE US (gases)	700.00 ppmw/4h
ATE US (vapors)	3.00 mg/l/4h
ATE US (dust,mist)	0.50 mg/l/4h
propylene glycol (57-55-6)	
LD50 oral rat	20,000.00 mg/kg (Rat; Experimental value)
LD50 dermal rat	22,500.00 mg/kg (Rat; Experimental value)

PEAK Windshield Wash -30 °F

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

propylene glycol (57-55-6)	
LD50 dermal rabbit	20,800.00 mg/kg (Rabbit; Experimental value)
ATE US (oral)	20,000.00 mg/kg bodyweight
ATE US (dermal)	20,800.00 mg/kg bodyweight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Causes damage to organs (May cause blindness if swallowed)
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

methanol (67-56-1)	
LC50 fish 1	15,400.00 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 10,000.00 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	10,800.00 mg/l (LC50; 96 h; Salmo gairdneri)
propylene glycol (57-55-6)	
EC50 Daphnia 1	34,400.00 mg/l (EC50; 48 h)
LC50 fish 2	51,600.00 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Oncorhynchus mykiss)

12.2. Persistence and degradability

PEAK Windshield Wash -30 °F	
Persistence and degradability	Not established.
methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O ₂ /g substance
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.50 g O ₂ /g substance
BOD (% of ThOD)	0.80 (Literature study)
propylene glycol (57-55-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.96 - 1.08 g O ₂ /g substance
Chemical oxygen demand (COD)	1.63 g O ₂ /g substance
ThOD	1.69 g O ₂ /g substance
BOD (% of ThOD)	0.57

12.3. Bioaccumulative potential

PEAK Windshield Wash -30 °F	
Bioaccumulative potential	Not established.

PEAK Windshield Wash -30 °F

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

methanol (67-56-1)	
BCF fish 1	< 10.00 (BCF: 72 h; Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
propylene glycol (57-55-8)	
Log Pow	-1.41 - -0.30 (-0.92; Experimental value; -1.07; Experimental value; Equivalent or similar to OECD 107; 20.5 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

methanol (67-56-1)	
Surface tension	0.02 N/m (20 °C)
Log Koc	Koc,PCKOCWIN v1.66: 1; Calculated value
propylene glycol (57-55-6)	
Surface tension	0.04 N/m (25 °C)

12.5. Other adverse effects

Effect on global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container, in a safe manner, to ..

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1993 Flammable liquids, n.o.s. (Methanol), 3, III

UN-No.(DOT) : UN1993

Proper Shipping Name (DOT) : Flammable liquids, n.o.s.
(Methanol)

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : III - Minor Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Symbols : G - Identifies PSN requiring a technical name

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel

Other information : In inner packaging no more than 5.0 L; Proper Shipping Name: Limited Quantity of Class III Per 49 CFR Part 173.10 (PG III, inner packaging no more than 5.0L).

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TDG

Refer to current TDG Canada for further Canadian regulations

Transport by sea

UN-No. (IMDG) : 1993
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S. (Methanol)
Class (IMDG) : 3 - Flammable liquids
Packing group (IMDG) : III - substances presenting low danger
Limited quantities (IMDG) : In Non-Bulk quantities with inner packaging no more than 5.0L: Proper Shipping Name: Dangerous Goods in Limited Class 3 (Windshield Wash Containing Methanol) Packages or pallets must be marked "Dangerous Goods in Limited Quantities of Class 3" Outer Package cannot weigh more than 30 kg.

Air transport

UN-No. (IATA) : 1993
Proper Shipping Name (IATA) : FLAMMABLE LIQUID, N.O.S. (Methanol)
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : III - Minor Danger
Instruction "passenger" - Limited quantities (ICAO) : Y309 (Max qty. per package 10L) Special Provision A3

SECTION 15: Regulatory information

15.1. US Federal regulations

PEAK Windshield Wash -30 °F	
CERCLA RQ	5000 lb(s) Methyl Alcohol
SARA Section 302 Threshold Planning Quantity (TPQ)	None
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	35 % Methanol
methanol (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb(s) (2270 kg)

15.2. International regulations

CANADA

WHMIS Classification



Class B Division 2 -
Flammable Liquid

Class D Division 1
Subdivision A - Very
toxic material
causing immediate
and serious toxic
effects

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

PEAK Windshield Wash -30 °F

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National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, substance(s) known to the state of California to cause cancer, developmental toxicity and/or reproductive toxicity

methanol (67-56-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	Yes	No	No	

methanol (67-56-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

propylene glycol (57-55-6)
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-statements:

H225	Highly flammable liquid and vapor
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H332	Harmful if inhaled
H370	Causes damage to organs

NFPA health hazard

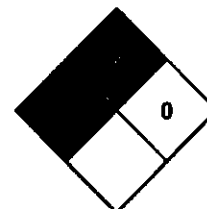
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

: 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 °F (37 °C) but below 200 °F (93 °C). (Classes II & IIIA)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection

A - Safety glasses

SDS GHS US (GHS HazCom 2012) DWI

Old World Industries, LLC makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, LLC as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, LLC assume liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

SAFETY DATA SHEET

ZepInc

ZEP 40 (AEROSOL)

Version 2.1

Revision Date 11/16/2015

Print Date 05/10/2016

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP 40 (AEROSOL)

Material number : 00000000000014401

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers**For SDS Information** : Compliance Services 1-877-428-9937**For a Medical Emergency** : 877-541-2016 Toll Free - All Calls Recorded**For a Transportation
Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.
In the District of Columbia 202-483-7616

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a liquefied gas
Colour	colourless, clear
Odour	alcohol-like, slight

GHS Classification

Gases under pressure : Liquefied gas

Eye irritation : Category 2A

GHS Label element

Hazard pictograms :



Signal word : Warning

Hazard statements : H280 Contains gas under pressure; may explode if heated.
H319 Causes serious eye irritation.

Precautionary statements :

Prevention:

P264 Wash skin thoroughly after handling.

P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

Storage:

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P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
P403 Store in a well-ventilated place.

Potential Health Effects

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
ethanol	64-17-5	>= 10 - < 20
butane	106-97-8	>= 1 - < 5
propane	74-98-6	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Get medical attention if irritation develops and persists.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
If in eyes, rinse with water for 15 minutes.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

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DO NOT induce vomiting unless directed to do so by a physician or poison control center.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray jet
Carbon dioxide (CO2)
Alcohol-resistant foam
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon dioxide (CO2)
Carbon monoxide
Smoke
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Refer to protective measures listed in sections 7 and 8.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Always replace cap after use.

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Dispose of rinse water in accordance with local and national regulations.

Avoid exposure - obtain special instructions before use.

Take precautionary measures against static discharges.

Do not breathe vapours or spray mist.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
Observe label precautions.
Keep in a dry, cool and well-ventilated place.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Do not freeze.
Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanol	64-17-5	TWA	1,000 ppm	ACGIH
			1,000 ppm 1,900 mg/m ³	NIOSH REL
			1,000 ppm 1,900 mg/m ³	OSHA Z-1
			1,000 ppm 1,900 mg/m ³	OSHA P0
butane	106-97-8	TWA	800 ppm 1,900 mg/m ³	NIOSH REL
			800 ppm 1,900 mg/m ³	OSHA P0
			1,000 ppm 1,800 mg/m ³	OSHA Z-1
propane	74-98-6	TWA	1,000 ppm	ACGIH
			1,000 ppm 1,800 mg/m ³	NIOSH REL
			1,000 ppm 1,800 mg/m ³	OSHA Z-1
			1,000 ppm 1,800 mg/m ³	OSHA P0

Engineering measures : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Remarks

: The suitability for a specific workplace should be discussed

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with the producers of the protective gloves.

Eye protection	: Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. Ensure that eyewash stations and safety showers are close to the workstation location.
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Aerosol containing a liquefied gas
Colour	: colourless, clear
Odour	: alcohol-like, slight
Odour Threshold	: No data available
pH	: not determined
Melting point/freezing point	: Not applicable
Boiling point	: 93 °C
Flash point	: Not applicable
Evaporation rate	: 1
Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 1.1 g/cm ³
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available

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Viscosity
Viscosity, kinematic : Not applicable
Heat of combustion : 7.94 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Vapours may form explosive mixture with air.
No decomposition if stored and applied as directed.
Conditions to avoid : Heat, flames and sparks.
Extremes of temperature and direct sunlight.
Incompatible materials : Strong oxidizing agents
Hazardous decomposition products : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

ethanol:

Acute oral toxicity : LD50 Oral Rat: 7,060 mg/kg

Acute inhalation toxicity : LC50 Rat: 124.7 mg/l
Exposure time: 4 h

butane:

Acute inhalation toxicity : LC50 Mouse: 1,237 mg/l
Exposure time: 2 h

LC50 Rat: 1,355 mg/l

propane:

Acute inhalation toxicity : LC50 Mouse: 1,237 mg/l
Exposure time: 2 h

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LC50 Rat: 658 mg/l
Exposure time: 4 h

LC50 Rat: 1,355 mg/l

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

ethanol:

butane:

propane:

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

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Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: No data available

Components:

butane :

Partition coefficient: n-octanol/water : Pow: 2.89

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

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Transportation Regulation: IATA (Cargo Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Ammonia, aqueous solution	1336-21-6	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard
Sudden Release of Pressure Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory
DSL : This product contains one or several components that are not on the Canadian DSL nor NDSL.
AICS : Not in compliance with the inventory
NZIoC : Not in compliance with the inventory
PICCS : Not in compliance with the inventory
IECSC : Not in compliance with the inventory

Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TOSI (Taiwan), TSCA (USA)

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ZEP 40 (AEROSOL)

Version 2.1

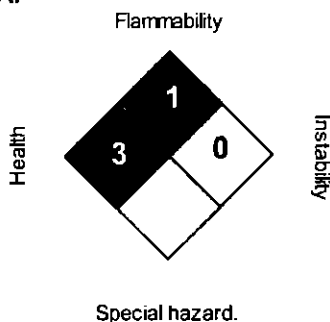
Revision Date 11/16/2015

Print Date 05/10/2016

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	2

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA GHS Label Information:

Hazard pictograms :



Signal word :

Warning:

Hazard statements :

Contains gas under pressure; may explode if heated. Causes serious eye irritation.

Precautionary statements :

Prevention: Wash skin thoroughly after handling. Wear eye protection/ face protection.
Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.
Storage: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a well-ventilated place.

Version:	2.1
Revision Date:	11/16/2015
Print Date:	05/10/2016

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.

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ZepInc

ZEP 40 (AEROSOL)

Version 2.1

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SAFETY DATA SHEET

Zep Inc

A07326 ZEP 45 017401_12CS 20N17

Version 2.2

Revision Date 06/18/2018

Print Date 01/10/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : A07326 ZEP 45 017401_12CS 20N17

Material number : 000000000000017401

Manufacturer or supplier's details

Company : Zep Inc.

Address : 350 Joe Frank Harris Parkway, SE
Emerson, GA 30137

Telephone : 404-352-1680

Emergency telephone numbers**For SDS Information** : Compliance Services 1-877-428-9937**For a Medical Emergency** : 877-541-2016 Toll Free - All Calls Recorded**For a Transportation
Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.
In the District of Columbia 202-483-7616**Recommended use of the chemical and restrictions on use**

Recommended use : Lubricant

Note: This product is labeled as a consumer product in accordance with the United States Consumer Product Safety Commission regulations. The warnings presented below in this Safety Data Sheet (SDS) comply with the 2012 OSHA Hazard Communication Standard (GHS - Globally Harmonized System of Classification and Labeling). The requirements for the labeling and warnings of consumer products may differ from those required for GHS based hazard communication.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a compressed gas
Colour	brown
Odour	characteristic

GHS ClassificationGases under pressure : Compressed gas
Skin irritation : Category 2
Eye irritation : Category 2A
Skin sensitisation : Category 1
Carcinogenicity : Category 1B
Specific target organ toxicity -
single exposure : Category 3 (Central nervous system)**GHS label elements**

Hazard pictograms :



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Signal word : Danger

Hazard statements : H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H350 May cause cancer.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
Storage:
P403 Store in a well-ventilated place.
P410 + P403 Protect from sunlight. Store in a well-ventilated place.
Disposal:
P501 Dispose of contents/container in accordance with local regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
trichloroethylene	79-01-6	>= 30 - < 50
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 20 - < 30

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Distillates (petroleum), straight-run middle	64741-44-2	>= 5 - < 10
2-(2-butoxyethoxy)ethanol	112-34-5	>= 1 - < 5
carbon dioxide	124-38-9	>= 1 - < 5
pentyl acetate	628-63-7	>= 1 - < 5
2-methylbutyl acetate	624-41-9	>= 1 - < 5

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Do NOT induce vomiting.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Effects are immediate and delayed.
Symptoms may include irritation, redness, pain, and rash.
Symptoms may include central nervous system depression, resulting in headache, nausea and/or dizziness.
Chronic effects are delayed and symptoms may not be observed during an exposure.
Causes skin irritation.
Causes serious eye irritation.
Review section 2 of SDS to see all potential hazards.
- Notes to physician : Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam

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- Carbon dioxide (CO2)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon dioxide (CO2)
Carbon monoxide
Smoke
Chlorine compounds
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours or spray mist.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the

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application area.
 Take precautionary measures against static discharges.
 Provide sufficient air exchange and/or exhaust in work rooms.
 Dispose of rinse water in accordance with local and national regulations.
 Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
 Always replace cap after use.

Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
 No smoking.
 Keep in a cool, well-ventilated place.
 Observe label precautions.
 Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
trichloroethylene	79-01-6	TWA	10 ppm	ACGIH
		STEL	25 ppm	ACGIH
		TWA	100 ppm	OSHA Z-2
		CEIL	200 ppm	OSHA Z-2
		Peak	300 ppm	OSHA Z-2
		TWA	50 ppm 270 mg/m3	OSHA P0
		STEL	200 ppm 1,080 mg/m3	OSHA P0
		STEL	100 ppm 537 mg/m3	CAL PEL
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	C	300 ppm	CAL PEL
		PEL	25 ppm 135 mg/m3	CAL PEL
2-(2-butoxyethoxy)ethanol	112-34-5	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m3	ACGIH
2-(2-butoxyethoxy)ethanol	112-34-5	TWA (Inhalable fraction and vapor)	10 ppm	ACGIH

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carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm 9,000 mg/m ³	NIOSH REL
		ST	30,000 ppm 54,000 mg/m ³	NIOSH REL
		TWA	5,000 ppm 9,000 mg/m ³	OSHA Z-1
		TWA	10,000 ppm 18,000 mg/m ³	OSHA P0
		STEL	30,000 ppm 54,000 mg/m ³	OSHA P0
		PEL	5,000 ppm 9,000 mg/m ³	CAL PEL
		STEL	30,000 ppm 54,000 mg/m ³	CAL PEL
pentyl acetate	628-63-7	TWA	100 ppm 525 mg/m ³	NIOSH REL
		TWA	100 ppm 525 mg/m ³	OSHA Z-1
		TWA	100 ppm 525 mg/m ³	OSHA P0
2-methylbutyl acetate	624-41-9	TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
TRICHLOROETHENE	79-01-6	Trichloroacetic acid	Urine	End of shift at end of workweek	15 mg/l	ACGIH BEI
TRICHLOROETHENE		Trichloroethanol	In blood	End of shift at end of workweek	0.5 mg/l	ACGIH BEI
TRICHLOROETHENE		Trichloroethylene	In end-exhaled air	End of shift at end of workweek		ACGIH BEI

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves

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Eye protection	: Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Aerosol containing a compressed gas
Colour	: brown
Odour	: characteristic
Odour Threshold	: No data available
pH	: Not applicable
Boiling point	: 87.22 °C
Flash point	: Not applicable
Evaporation rate	: < 1
Flammability (solid, gas)	: Not classified as a flammability hazard
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: Not applicable
Relative vapour density	: No data available
Density	: 1.137 g/cm ³
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: Not applicable
Heat of combustion	: 20.59 kJ/g

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.
Conditions to avoid	: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	: Metals Oxidizing agents
Hazardous decomposition products	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Chlorine Phosgene Hydrogen chloride gas

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition	: None known.
Symptoms of Overexposure	: Effects are immediate and delayed. Symptoms may include irritation, redness, pain, and rash. Symptoms may include central nervous system depression, resulting in headache, nausea and/or dizziness. Chronic effects are delayed and symptoms may not be observed during an exposure.

Carcinogenicity:

IARC	Group 1: Carcinogenic to humans	
	trichloroethylene	79-01-6
ACGIH	Suspected human carcinogen	
	trichloroethylene	79-01-6
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.	
NTP	Known to be human carcinogen	
	trichloroethylene	79-01-6

Acute toxicity

Product:

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Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

trichloroethylene:

Acute oral toxicity : LD50 Oral Rat: 4,920 mg/kg

Acute inhalation toxicity : LC50 Mouse: 8450 ppm
Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal Rabbit: > 20,000 mg/kg

Distillates (petroleum), hydrotreated heavy naphthenic:

Acute oral toxicity : LD50 Rat: > 5,000 mg/kg

Acute inhalation toxicity : LC50 Rat: > 5 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg

Skin corrosion/irritation

Product:

Remarks: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

Product:

Remarks: Causes sensitisation.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

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Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: No data available

Components:

trichloroethylene :

Partition coefficient: n-octanol/water : log Pow: 2.29

2-(2-butoxyethoxy)ethanol :

Partition coefficient: n-octanol/water : Pow: 1

pentyl acetate :

Partition coefficient: n-octanol/water : log Pow: 2.3

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1), - Limited quantity

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1), - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1), - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1), - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, (6.1),

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list : The following substance(s) is/are subject to TSCA 12(b) export notification requirements:
trichloroethylene

79-01-6

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No substances are subject to a Significant New Use Rule.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
trichloroethylene	79-01-6	100	212

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Gases under pressure
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitisation
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

trichloroethylene	79-01-6	47 %
2-(2-butoxyethoxy)ethanol	112-34-5	4.3931 %
2-butoxyethanol	111-76-2	0.0669 %

California Prop. 65



WARNING: This product can expose you to chemicals including trichloroethylene, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

DSL All components of this product are on the Canadian DSL
TSCA On TSCA Inventory

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

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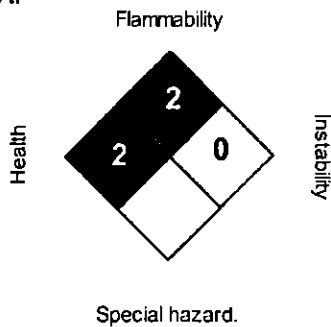
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SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2*
FLAMMABILITY	2
PHYSICAL HAZARD	3

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms



Signal word

Danger:

Hazard statements

Contains gas under pressure; may explode if heated. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness. May cause cancer.

Precautionary statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response: IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/ attention. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.
Storage: Store in a well-ventilated place. Protect from sunlight. Store in a well-ventilated place.
Disposal: Dispose of contents/container in accordance with local regulation.

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We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes.

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This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodar®, Mykal™, and a number of private labeled brands.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP CHERRY BOMB WIPES_PK_4CS

Material number : 000000000000346601

Manufacturer or supplier's details

Company : Zep Inc.

Address : 350 Joe Frank Harris Parkway, SE
Emerson, GA 30137

Telephone : 404-352-1680

Emergency telephone numbers

For SDS Information : Compliance Services 1-877-428-9937

For a Medical Emergency : 877-541-2016 Toll Free - All Calls Recorded

**For a Transportation
Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.
In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use

Recommended use : Hand Care

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Liquid absorbed by inert carrier material
Colour	opaque, light yellow
Odour	like fruit

GHS Classification

Eye irritation : Category 2A

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.

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P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/ eye protection/ face protection.

P285 In case of inadequate ventilation wear respiratory protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P363 Wash contaminated clothing before reuse.

Disposal:

P501 Dispose of contents/container in accordance with local regulation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
Distillates (petroleum), hydrotreated light	64742-47-8	>= 3 - < 5
Fatty acids, tall-oil, reaction products with isopropanolamine	68440-26-6	>= 1 - < 3
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	68585-47-7	>= 1 - < 3
Alcohols, C12-16, ethoxylated	68551-12-2	>= 1 - < 3
1,1',1"-nitrilotripropan-2-ol	122-20-3	>= 1 - < 3
benzaldehyde	100-52-7	>= 0.1 - < 1

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

General advice : Do not leave the victim unattended.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

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- In case of skin contact : This product is formulated for use on skin but should always be immediately washed off with plenty of water. Discontinue use if irritation and redness develop. If conditions persist for more than 72 hours, consult a physician.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
If in eyes, rinse with water for 15 minutes.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Effects may be delayed, symptoms may include minor eye or skin irritation.
Overexposure may cause mild eye or skin irritation.
- Notes to physician : Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical
Water spray jet
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon dioxide (CO2)
Carbon monoxide
Smoke
Sulphur oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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- Personal precautions, protective equipment and emergency procedures : Use non-slip safety shoes in areas where spills or leaks can occur.
Refer to protective measures listed in sections 7 and 8.
Material can create slippery conditions.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains, inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
Avoid contact with eyes.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.
Observe label precautions.
- Materials to avoid : Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated light	64742-47-8	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	400 ppm 1,600 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
		PEL (particulate)	5 mg/m3	CAL PEL
benzaldehyde	100-52-7	TWA	2 ppm	US WEEL
		STEL	4 ppm	US WEEL

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Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection
Remarks : No special protection is required.

Eye protection : Eye protection is not required while washing with this product. In the workplace, the use of safety glasses is recommended to avoid eye exposure during the handling of containers or during spill clean-up.

Skin and body protection : No special protection is required.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid absorbed by inert carrier material

Colour : opaque, light yellow

Odour : like fruit

Odour Threshold : No data available

pH : 9.5 - 10.5

Melting point/freezing point : No data available

Boiling point : 100 °C

Flash point :
does not flash

Evaporation rate : 1

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative density : No data available

Density : 0.992 g/cm3

Solubility(ies)

Water solubility : emulsifiable

Partition coefficient: n- : No data available

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octanol/water

Auto-ignition temperature : No data available

Thermal decomposition : No data available

Viscosity

Viscosity, kinematic : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : Carbon oxides
Sulphur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition : None known.

Symptoms of Overexposure : Effects may be delayed, symptoms may include minor eye or skin irritation.

Carcinogenicity:

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Acute toxicity

Product:

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Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

Distillates (petroleum), hydrotreated light:

Acute oral toxicity : LD50 Rat: > 5,000 mg/kg

Acute inhalation toxicity : LC50 Rat: > 4.6 mg/l
Exposure time: 6 h

Acute dermal toxicity : LD50 Rat: > 2,000 mg/kg

Sulfuric acid, mono-C10-16-alkyl esters, sodium salts:

Acute oral toxicity : LD50 Oral Rat: 800 - 2,700 mg/kg

Acute dermal toxicity : LD50 Dermal Rabbit: >= 10,000 mg/kg

Skin corrosion/irritation

Product:

Result: No skin irritation

Serious eye damage/eye irritation

Product:

Remarks: Contact with eyes may cause irritation.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

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Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

1,1',1"-nitrilotripropan-2-ol :

Toxicity to fish : LC0 (Fish): 3.158 mg/l
Exposure time: 96 h
Method: Third Party Data - Actual or Inferred

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 500 mg/l
Exposure time: 48 h
Method: Third Party Data - Actual or Inferred

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: No data available

Components:

benzaldehyde :

Partition coefficient: n-octanol/water : log Pow: 1.5

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life.

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.
- Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IMDG (Vessel):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Cargo Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Passenger Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: TDG (Canada):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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EPCRA - Emergency Planning and Community Right-to-Know Act**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium hydroxide	1310-73-2	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ethylene oxide	75-21-8	10	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Respiratory or skin sensitisation
Serious eye damage or eye irritation**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**California Prop. 65**

This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

The components of this product are reported in the following inventories:**DSL** All components of this product are on the Canadian DSL
TSCA On TSCA Inventory

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

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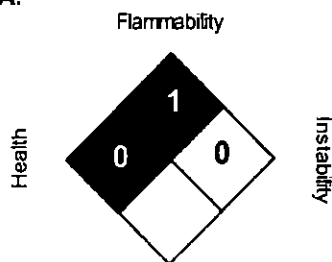
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Further information

NFPA:



Special hazard.

HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms :



Signal word :

Danger:

Hazard statements :

May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements :

Prevention: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ eye protection/ face protection. In case of inadequate ventilation wear respiratory protection.
Response: IF ON SKIN: Wash with plenty of soap and water. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

Disposal: Dispose of contents/container in accordance with local regulation.

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We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®, Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®,

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Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®, Rexodan®, Mykal™, and a number of private labeled brands.

SAFETY DATA SHEET**ZepInc****A00358 MST COIL CLEANING FOAM 20net19**

Version 1.0

Revision Date 02/16/2015

Print Date 06/05/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : A00358 MST COIL CLEANING FOAM 20net19

Material number : 00000000001002205

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers**For SDS Information** : Compliance Services 1-877-428-9937**For a Medical Emergency** : 877-541-2016 Toll Free - All Calls Recorded**For a Transportation
Emergency** : CHEMTREC: 800-424-9300 - All Calls Recorded.
In the District of Columbia 202-483-7616**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Appearance	Aerosol containing a liquefied gas
Colour	white, light yellow
Odour	characteristic

GHS ClassificationFlammable aerosols : Category 2
Gases under pressure : Liquefied gas
Skin irritation : Category 2
Eye irritation : Category 2A**GHS Label element**

Hazard pictograms :



Signal word : Warning

Hazard statements : H223 Flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames
and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after

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use.

P264 Wash skin thoroughly after handling.

P280 Wear eye protection/ face protection.

P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

Storage:

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Potential Health Effects**Carcinogenicity:****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
1-propoxypropan-2-ol	1569-01-3	>= 5 - < 10
butane	106-97-8	>= 1 - < 5
trisodium orthophosphate	7601-54-9	>= 1 - < 5
propane	74-98-6	>= 1 - < 5
disodium metasilicate	6834-92-0	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice : Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious place in recovery position and seek medical

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- advice.
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
Wash off immediately with plenty of water for at least 15 minutes.
If on clothes, remove clothes.
- In case of eye contact : Remove contact lenses.
Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
Keep eye wide open while rinsing.
- If swallowed : Keep respiratory tract clear.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Smoke
Phosphorus compounds
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

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SECTION 7. HANDLING AND STORAGE

- Advice on safe handling** : Avoid contact with skin and eyes.
 For personal protection see section 8.
 Do not breathe vapours or spray mist.
 Smoking, eating and drinking should be prohibited in the application area.
 Take precautionary measures against static discharges.
 Avoid exposure - obtain special instructions before use.
 Dispose of rinse water in accordance with local and national regulations.
 Always replace cap after use.
- Conditions for safe storage** : **BEWARE:** Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
 No smoking.
 Observe label precautions.
 Keep in a dry, cool and well-ventilated place.
 Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid** : Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
butane	106-97-8	TWA	800 ppm 1,900 mg/m3	NIOSH REL
		TWA	800 ppm 1,900 mg/m3	OSHA P0
trisodium orthophosphate	7601-54-9	STEL	5 mg/m3	US WEEL
propane	74-98-6	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,800 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,800 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,800 mg/m3	OSHA P0

Personal protective equipment

- Respiratory protection** : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

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Remarks	: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	: Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. Ensure that eyewash stations and safety showers are close to the workstation location.
Skin and body protection	: impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Aerosol containing a liquefied gas
Colour	: white, light yellow
Odour	: characteristic
Odour Threshold	: no data available
pH	: not applicable
Melting point/freezing point	: no data available
Boiling point	: not applicable
Flash point	: not applicable
Evaporation rate	: 1 n-Butyl Acetate = 1.0
Flammability (solid, gas)	: Extremely flammable aerosol.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Density	: 1.05 g/cm ³
Solubility(ies)	
Water solubility	: completely soluble
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: not determined
Thermal decomposition	: no data available
Viscosity	
Viscosity, kinematic	: no data available

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Heat of combustion : 4.23 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Vapours may form explosive mixture with air.
No decomposition if stored and applied as directed.

Conditions to avoid : Heat, flames and sparks.
Extremes of temperature and direct sunlight.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:**disodium metasilicate:**

Acute oral toxicity : LD50 rat: 1,153 mg/kg

Skin corrosion/irritation**Product:**

Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation**Product:**

Remarks: Irritating to eyes.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

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no data available

Reproductive toxicity

no data available

1-propoxypropan-2-ol:
butane:
trisodium orthophosphate:
propane:
disodium metasilicate:

STOT - single exposure

no data available

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Further information

Product:

Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

Product:

Partition coefficient: n-
octanol/water : Remarks: no data available

Components:

butane :
Partition coefficient: n-
octanol/water : Pow: 2.89

Mobility in soil

no data available

Other adverse effects

no data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of
Stratospheric Ozone - CAA Section 602 Class I
Substances

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Remarks : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations. The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

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Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium hydroxide	1310-73-2	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Sudden Release of Pressure Hazard

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA On TSCA Inventory
DSL This product contains one or several components that are not on the Canadian DSL nor NDSL.
AICS Not in compliance with the inventory
NZIoC Not in compliance with the inventory
PICCS Not in compliance with the inventory
IECSC Not in compliance with the inventory

Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SAFETY DATA SHEET



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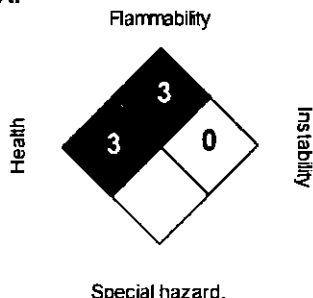
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Further information

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	2

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA GHS Label Information:

Hazard pictograms



Signal word

Warning:

Hazard statements

Flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation.

Precautionary statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Wash skin thoroughly after handling. Wear eye protection/ face protection. Wear protective gloves.
Response: IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.
Storage: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

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