

### SUNISO® 3GS Refrigeration Oil

11/11/2011 11:03 AM

1. Identification of the substance or preparation  
1.1 Product name: SUNISO® 3GS Refrigeration Oil  
1.2 Other names: none  
1.3 CAS number: 68719-08-9  
1.4 EC number: 263-200-01-0  
1.5 Other identifiers: none

#### Identification of the substance or preparation

1.1 Product name: SUNISO® 3GS Refrigeration Oil

#### Use of substance/preparation:

1.1 Use: Lubricant for refrigeration systems

#### Company identification

1.1 Name: Sonneborn  
1.2 Address: 10000 West 100th Street, Minneapolis, MN 55426

#### Emergency telephone number

1.1 In the US: 1-800-930-9300  
1.2 Outside the US: +1-612-546-1000

#### GHS Classification

1.1 Hazard: H411 Harmful to the environment  
1.2 Precautionary: P501 Dispose of contents and container according to local, national, and international regulations

#### HMIS RATING USA

1.1 Health: 1, Hazard: 1, Reactivity: 0

3.1.1 Molecular Weight: 300.45 g/mol

INGREDIENT	% BY WEIGHT	CAS #	HAZARD	DANGER SYMBOL(S)
1.1.1 Polyolefin base oil	100	68719-08-9	H411	P501

1.1.2 This is a data sheet for a substance, not a mixture, and is not intended to be used as a substitute for a safety data sheet.

1.1.3 Molecular Weight: 300.45 g/mol

#### Swallowing

### SUNISO® 3GS Refrigeration Oil

Information on this page is intended for use by trained personnel only. It is not intended for use by untrained personnel.

#### Inhalation

Exposure to vapors may cause irritation of the respiratory tract. High concentrations may cause dizziness and loss of consciousness. In case of severe respiratory distress, seek medical attention immediately. If necessary, use appropriate respiratory protection.

#### Skin

Exposure to skin may cause irritation. Wash with plenty of water.

#### Eye contact

Exposure to eyes may cause irritation. Flush with plenty of water for several minutes. Seek medical attention if necessary.

UNCLASIFIED

**Flash Point:** 93 °C / 200 °F (M), (M) 93

#### NFPA CLASSIFICATION USA

Health 1    Irritation 1    Reactivity 0    Environmental 0

#### Extinguishing media

- Alcohol
- Water spray
- Carbon dioxide
- Water
- CO<sub>2</sub>
- Sand or earth

Use water spray, alcohol-resistant foam, carbon dioxide, water, or sand or earth.

#### Special fire fighting procedures

Use dry chemical, water spray, or alcohol-resistant foam. In case of a spill, use water spray and read the fire data sheet immediately. If a fire occurs, use CO<sub>2</sub> extinguishers. If necessary, use appropriate fire extinguishing media. If necessary, use appropriate fire extinguishing media. If necessary, use appropriate fire extinguishing media.

#### Special protective equipment for firefighters

Use appropriate respiratory protection.

#### Unusual fire and explosion hazards

None known. Use appropriate fire extinguishing media.

UNCLASIFIED

#### Personal precautions







### SUNISO® 3GS Refrigeration Oil

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<u>Clasificación</u>	Los ingredientes activos no son peligrosos.
<u>Etiquetado</u>	Los ingredientes no son peligrosos.
<u>Clasificación</u>	Los ingredientes activos no son peligrosos.
<u>Clasificación</u>	Los ingredientes no son peligrosos.
<u>Clasificación</u>	Los ingredientes no son peligrosos.

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#### 1. Identificación del producto

##### Recommended uses and restrictions

Use only for the intended purpose. Do not use for other purposes.

##### Further information, Europe

For more information, please contact your local representative.

For more information, please contact your local representative.

The information expressed here is based on the current data available. It is subject to change without notice. The information is provided for informational purposes only and does not constitute a warranty or guarantee of any kind. The user is responsible for the safe use of the product.

### SUNISO® 4GS Refrigeration Oil

11/11/2011 11:30 AM

1. Identification of the substance or preparation  
 Name of the substance or preparation: SUNISO® 4GS Refrigeration Oil  
 CAS No.: 68739-88-3  
 EC No.: 263-145-3  
 Other names: SUNISO® 4GS Refrigeration Oil

2. Hazards  
 GHS 02: Corrosive  
 H314: Causes severe skin burns and eye damage.  
 P273: Avoid contact with skin.  
 P303+361+353: In case of contact with skin, wash thoroughly with plenty of water. Remove contaminated clothing and shoes.  
 P305+351+338: In case of contact with eyes, rinse abundantly for several minutes. Remove contact lenses, if available and do not delay rinsing.

#### Identification of the substance or preparation

Name of the substance or preparation:

#### Use of substance/preparation:

This material is a refrigerant used in air conditioning systems.

#### Company identification

Sonneborn, Inc.  
 10000 Sunbelt Road, Suite 100  
 Houston, TX 77060

#### Emergency telephone number

Emergency: 1-800-930-0100  
 Sonneborn: 1-800-930-0100

11/11/2011 11:30 AM

GHS 02: Corrosive  
 H314: Causes severe skin burns and eye damage.  
 P273: Avoid contact with skin.  
 P303+361+353: In case of contact with skin, wash thoroughly with plenty of water. Remove contaminated clothing and shoes.  
 P305+351+338: In case of contact with eyes, rinse abundantly for several minutes. Remove contact lenses, if available and do not delay rinsing.

#### HMIS RATING USA

Health: 1	Physical: 1	Reactivity: 0	Other: 0
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3. Composition and information on ingredients

INGREDIENT	% BY WEIGHT	CAS #	HAZARD	DANGER SYMBOL(S)
Isobutane (refrigerant)	100	68739-88-3		
Deaerated base oil				

This is a dangerous substance, classified, determined and labeled.

11/11/2011 11:30 AM

#### Swallowing

### SUNISO® 4GS Refrigeration Oil

Information on this page is intended for use by trained personnel only. It is not intended for use by the general public.

#### Inhalation

Exposure to vapors may irritate the respiratory tract. High concentrations may cause dizziness and headache. Prolonged exposure may lead to respiratory distress. Avoid breathing vapors. If inhaled, move to fresh air. If symptoms persist, seek medical attention.

#### Skin

Exposure to skin may cause irritation. Avoid contact with skin. Wash with soap and water.

#### Eye contact

Exposure to eyes may cause irritation. Flush with water for several minutes. Seek medical attention if irritation persists.

UNION PACIFIC G M

**Flash Point:** 93°F / 30°C (M), (M) 93

#### NFPA CLASSIFICATION USA

Health 1      Irritant 1      Reactivity 0      Environmental 0

#### Extinguishing media

- Alcohol
- Water
- Carbon dioxide
- Air
- FOAM
- Water spray

Special fire fighting procedures: Use water spray, carbon dioxide, or foam. Avoid direct stream of water.

#### Special fire fighting procedures

Use water spray, carbon dioxide, or foam. Avoid direct stream of water. If fire is large, call fire department. Evacuate area and shut off equipment if possible.

#### Special protective equipment for firefighters

Wear self-contained breathing apparatus and protective clothing.

#### Unusual fire and explosion hazards

None known. Avoid contact with open flame or heat. Do not use near electrical equipment.

UNION PACIFIC M

#### Personal precautions



### SUNISO® 4GS Refrigeration Oil

Wear suitable protective equipment when using

#### Environmental precautions

Do not release into the environment. Do not pour into drains. Do not release into the atmosphere.

#### Methods for cleaning up

Use suitable absorbents such as sand, earth, perlite or other inert materials. Collect in a suitable container for disposal.

GHS 07 Hazardous to the environment

#### HANDLING

Do not breathe dusts or vapors. Use only in well-ventilated areas.

#### Ventilation

Use only in well-ventilated areas.

#### STORAGE

##### Storage requirements

Store in a cool, dry place. Do not store in a hot or open flame.

UN 3374, Class 3, Hazardous to the environment

#### EXPOSURE LIMIT VALUES

Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous
Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous

#### OCCUPATIONAL EXPOSURE CONTROLS

##### Respiratory protection

Use appropriate respiratory protection when necessary.

##### Hand protection/protective gloves

Wear appropriate gloves.

##### Eye protection

Wear appropriate eye protection.

##### Skin protection

Wear appropriate skin protection.

##### Environmental Exposure Controls:





### SUNISO® 4GS Refrigeration Oil

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<u>Clasificación</u>	Los ingredientes contenidos en el producto son los siguientes:
<u>Composición</u>	Los ingredientes contenidos en el producto son los siguientes:
<u>Clasificación</u>	Los ingredientes contenidos en el producto son los siguientes:
<u>Precauciones</u>	Los ingredientes contenidos en el producto son los siguientes:

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#### 1. Identificación del producto

##### Recommended uses and restrictions

Use recommended for applications as specified in the technical data sheet.

##### Further information, Europe

For information, use the appropriate classification and labeling.

Los datos de contacto de los proveedores de los productos se encuentran en la página 190 del manual de usuario.

The information expressed here is based on the information provided by the manufacturer, and it is not intended to be used as a substitute for the technical data sheet. The information is provided for informational purposes only and does not constitute a warranty or a guarantee of any kind. The information is provided for informational purposes only and does not constitute a warranty or a guarantee of any kind.



# MATERIAL SAFETY DATA SHEET

## SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Company Name</b> Nu-Calgon Wholesaler, Inc.		<b>Phone Number</b> (314) 469-7000 / (800) 554-5499		<b>CHEMTREC</b> (800) 424-9300	
<b>Street Address</b> 2008 Altom Court		<b>City</b> St. Louis	<b>State</b> MO	<b>Postal Code</b> 63146-4151	<b>Last Update</b> 5/20/13
<b>Product Name</b> Aerosol Penetrating Lubricant		<b>Product Number</b> 4085	<b>Product Use</b> Lubricant		<b>EPA Registration #</b> N/A

## SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>% By Wt.</u>	<u>CAS Number</u>	<u>TLV</u>	<u>PEL</u>
Hydrotreated Light Petroleum Distillates	45 - 55	64742-47-8	5 mg/m3 (mist)	5 mg/m3 (mist)
Stoddard solvent	25 - 35	8052-41-3	100 ppm	100 ppm
Petroleum distillates, hydrotreated light naphthenic	< 5.0	64742-53-6	5 mg/m3 (mist)	5 mg/m3 (mist)
Propane	< 10	74-98-6	1000 ppm	1000 ppm
Isobutane	< 10	75-28-5	800 ppm	800 ppm

## SECTION 3 – HAZARD IDENTIFICATION

**Emergency Overview:** DANGER: Harmful or fatal if swallowed. Extremely flammable. Keep away from open flames, hot surfaces and sources of ignition. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 122°F (50°C). KEEP OUT OF REACH OF CHILDREN

### Potential Health Effects

**Eyes:** Contact with eyes may cause irritation.

**Skin:** Substance may cause slight skin irritation. Prolonged skin contact may defat the skin and produce dermatitis.

**Ingestion:** Aspiration may cause pulmonary oedema and pneumonitis. Nausea.

**Inhalation:** Excessive inhalation of vapors can be harmful and may cause headache, dizziness, asphyxia, anesthetic effects and possible unconsciousness.

**Chronic Exposure:** Prolonged skin contact may cause skin irritation and/or dermatitis, May cause irreversible eye damage or Lung damage

**Carcinogenicity:** None Known

**Medical Conditions Aggravated by Exposure:** May aggravate existing eye, skin, or upper respiratory conditions

## SECTION 4 – FIRST AID MEASURES

**Eyes:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists, consult a specialist

**Skin:** Wash off with soap and water. If skin irritation persists, call a physician

**Ingestion:** DO NOT INDUCE VOMITING. Clean mouth with water and afterwards drink plenty of water. Call a physician or Poison Control Centre immediately

**Inhalation:** Move to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth. Obtain medical attention

## SECTION 5 – FIREFIGHTING MEASURES

**Flash Point:** N/A°F

**Autoignition Temp:** N/A°C/N/A°F

**Hazardous Products of Combustion:** Carbon oxides , Fluorides (trace), Phosphides (trace) or Zinc (trace)

**Flammable Limits in Air:** N/A

**Extinguishing Media:** Foamy spray. Dry chemical. Carbon dioxide (CO<sub>2</sub>).

**Fire and Explosion Hazards:** Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 122°F (50°C)

**Special Firefighting Procedures:** Water mist may be used to cool closed containers. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Spill or Leak:** Prevent product from entering drains. Should not be released into the environment. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container . Dispose of in accordance with local regulations.

## SECTION 7 – HANDLING AND STORAGE

**Handling Procedures and Equipment:** Wear personal protective equipment. Do not pierce or burn, even after use. Do not spray on naked flame or any incandescent material.

**Storage Requirements:** KEEP OUT OF REACH OF CHILDREN. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 122°F (50°C).

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory Protection:** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

**Eye Protection:** Safety glasses with side-shields

**Protective Clothing:** Neoprene gloves

**Exposure Guidelines:** See section 2

**Specific Engineering Controls (such as ventilation, enclosed process):** Ensure adequate ventilation, especially in confined areas Remove all sources of ignition

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Form:</b> Aerosol	<b>Freezing Point:</b> N/A°C/N/A°F	<b>% Volatile by Weight:</b> 49.9%
<b>Color:</b> Light straw	<b>Vapor Density [air =1]:</b> N/A	<b>Evaporation Rate:</b> N/A
<b>Odor:</b> Solvent	<b>Vapor Pressure:</b> N/A	<b>Specific Gravity:</b> 0.79
<b>Boiling Point:</b> N/A°C/N/A°F	<b>Solubility in Water:</b> Insoluble.	<b>pH (concentrate):</b> N/A

## SECTION 10 – STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal conditions

**Hazardous Polymerization:** Hazardous polymerization does not occur

**Incompatibilities:** Strong oxidizing agents

**Reactive Conditions to avoid:** Heat, flames and sparks. Extremes of temperature and direct sunlight. Do not expose to temperatures above 54°C .

**Decomposition Products:** Carbon oxides , Fluorides (trace), Phosphides (trace) or Zinc (trace)

**SECTION 11 – TOXICOLOGICAL INFORMATION**

<u>Hazardous Ingredients</u>	<u>CAS #</u>	<u>EINECS #</u>	<u>LD 50 of Ingredient</u> (Specify Species)	<u>LC50 of Ingredient</u> (Specify Species)
Hydrotreated Light Petroleum Distillates	64742-47-8	N/E	N/A	N/A
Stoddard solvent	8052-41-3	N/E	N/A	N/A
Petroleum distillates, hydrotreated light naphthenic	64742-53-6	N/E	N/A	N/A
Propane	74-98-6	N/E	N/A	N/A
Isobutane	75-28-5	N/E	N/A	Inhalation LC50 Rat: 57 pph/15M

**SECTION 12 – ECOLOGICAL INFORMATION**

<u>Hazardous Ingredients</u>	<u>Aquatic Toxicity Data</u>
	N/A for Hydrotreated Light Petroleum Distillates, Stoddard solvent, Petroleum distillates, hydrotreated light naphthenic, Propane and Isobutane.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**Waste Disposal:** Should not be released into the environment. Dispose of in accordance with local regulations.

**SECTION 14 – TRANSPORTATION INFORMATION**

**Special Shipping Information:** No Data.

<u>Purview</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
<b>DOT</b> (Land)	Consumer Commodity ORM-D	No Data.	No Data.	No Data.
<b>IMO</b> (Water)	No Data.	No Data.	No Data.	No Data.
<b>ICAO</b> (Air)	Aerosol, Flammable,	UN1950	N/A	2.1

**SECTION 15 – REGULATORY INFORMATION**

<b>WHMIS Classification:</b> (Workplace Hazardous Material Information System)	A, B1
<b>SARA Title III:</b> (Superfund Amendments & Reauthorization Act)	No
<b>OSHA:</b> (Occupational Safety & Health Administration)	See section 2
<b>TSCA:</b> (Toxic Substance Control Act)	Present
<b>VOC:</b> (volatile Organic Compounds)	49.9%
<b>CPR:</b> (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
<b>EINECS:</b> (European Inventory of Existing Commercial Chemical Substances)	No Data.
<b>DSL / NDSL:</b> (Canadian Domestic Substance List)(Non-Domestic Substance List)	Present
<b>CERCLA:</b> (Comprehensive Response Compensation & Liability Act)	No
<b>IDL:</b> (Canadian Ingredient Disclosure List)	No Data.
<b>NFPA (HMIS) Rating:</b> (Hazardous Materials Identification System)	Health=2; Fire=3; Reactivity=0 Personal protective equipment = B

**SECTION 16 – OTHER INFORMATION**

No Data.

The information contained herein is based on the data available to us and is believed to be correct. However, Nu-Calgon Wholesaler Inc. makes no warranty, expressed, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Nu-Calgon Wholesaler Inc. assumes no liability for injury from the use of the product described herein.



# MATERIAL SAFETY DATA SHEET

## SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Company Name</b> Nu-Calgon Wholesaler, Inc.	<b>Phone Number</b> (314) 469-7000 / (800) 554-5499	<b>CHEMTREC</b> (800) 424-9300		
<b>Street Address</b> 2008 Altom Court	<b>City</b> St. Louis	<b>State</b> MO	<b>Postal Code</b> 63146-4151	<b>Last Update</b> 1/8/13
<b>Product Name</b> Zerol 200TD	<b>Product Number</b> 4308	<b>Product Use</b> Refrigeration Oil		<b>EPA Registration #</b> N/A

## SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

<b>Hazardous Ingredients</b>	<b>% By Wt.</b>	<b>CAS Number</b>	<b>TLV</b>	<b>PEL</b>
THIS PRODUCT IS CONSIDERED AS NON-HAZARDOUS (SEE SECTION 14).				

## SECTION 3 – HAZARD IDENTIFICATION

<b>Emergency Overview:</b> Clear yellow liquid, Odorless. HMIS Rating Health 1 ; Fire 1; Reactivity 0. Primary Route of Exposure:Skin.
<b>Potential Health Effects</b>
<b>Eyes:</b> Expected to cause no more than minor eye irritation. Application of a similar product into the eyes of rabbits produced very slight membrane irritation without corneal injury. Avoid eye contact as good industrial practice.
<b>Skin:</b> Not a primary skin irritant but may cause skin irritation on repeated or prolonged contact. Application of a similar product onto the skin of rabbits produced slight arrhythmia and edema.
<b>Ingestion:</b> May cause nausea. Not expected to be acutely toxic by ingestion.
<b>Inhalation:</b> Avoid breathing vapor or mist. Under normal use conditions, this product is not an inhalation hazard. Prolonged exposure to vapors may cause dizziness and headaches.
<b>Chronic Exposure:</b> No Data.
<b>Carcinogenicity:</b> No Data.
<b>Medical Conditions Aggravated by Exposure:</b> There is no evidence that this product aggravates an existing medical condition.

## SECTION 4 – FIRST AID MEASURES

<b>Eyes:</b> Immediately flush eyes with plenty of water for at least 15 minutes while holding the eyelids open. If irritation persists, see a physician.
<b>Skin:</b> Remove contaminated clothing. Wash skin thoroughly with soap and water. Launder contaminated clothing. See a doctor if irritation persists.
<b>Ingestion:</b> If swallowed, call a physician immediately. ONLY induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. If medical advice cannot be obtained, take the person, product container and MSDS to the nearest medical emergency center.
<b>Inhalation:</b> Remove to fresh air. If not breathing, give artificial respiration and seek medical attention immediately. Remove material from eyes, skin and clothing.

## SECTION 5 – FIREFIGHTING MEASURES

<b>Flash Point:</b> >150°C / >302°F
<b>Autoignition Temp:</b> >340°C/>644°F
<b>Hazardous Products of Combustion:</b> No Data.
<b>Flammable Limits in Air:</b> No Data.
<b>Extinguishing Media:</b> Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.
<b>Fire and Explosion Hazards:</b> None.
<b>Special Firefighting Procedures:</b> Wear full protective clothing and positive pressure breathing apparatus.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>Spill or Leak:</b> Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.
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## SECTION 7 – HANDLING AND STORAGE

**Handling Procedures and Equipment:** Minimum feasible handling temperatures should be maintained.

**Storage Requirements:** Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**Respiratory Protection:** Airborne concentrations should be kept to lowest levels possible. If vapor, dust or mist is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air-supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

**Eye Protection:** Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

**Protective Clothing:** Protective clothing such as coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves and boots resistant to chemicals and petroleum distillates required. Exposed workers should wash exposed skin several times daily with soap and water. Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

**Exposure Guidelines:** None established for product.

**Specific Engineering Controls (such as ventilation, enclosed process):** Local exhaust ventilation recommended if generating vapor, dust, or mist. If exhaust ventilation is not available or inadequate, use MSHA or NIOSH approved respirator as appropriate.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Form:</b> liquid.	<b>Freezing Point:</b> Not determined°C/ °F	<b>% Volatile by Weight:</b> No Data.%
<b>Color:</b> Clear yellow	<b>Vapor Density [air =1]:</b> Not determined	<b>Evaporation Rate:</b> No Data.
<b>Odor:</b> Odorless	<b>Vapor Pressure:</b> Not determined	<b>Specific Gravity:</b> (water=1): .86 - .88
<b>Boiling Point:</b> > 300°C/>572°F	<b>Solubility in Water:</b> Negligible	<b>pH (concentrate):</b> No Data.

## SECTION 10 – STABILITY AND REACTIVITY

**Chemical Stability:** Stable (thermal, light).

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** May react with strong oxidizing materials.

**Reactive Conditions to avoid:** No Data.

**Decomposition Products:** Normal combustion forms carbon dioxide and water vapor. Incomplete combustion can form carbon monoxide.

## SECTION 11 – TOXICOLOGICAL INFORMATION

<b>Hazardous Ingredients</b>	<b>CAS #</b>	<b>EINECS #</b>	<b>LD 50 of Ingredient (Specify Species)</b>	<b>LC50 of Ingredient (Specify Species)</b>
Skin: (Draize) believed to be between 3-5 (rabbit) moderately irritating (maximum 8) Eyes: (Draize) believed to be < 15 (rabbit) no appreciable effect (maximum 110) Sensitization: Not determined			Oral: believed to be > 5 g/kg (rat) practically non-toxic Inhalation: Not determined Dermal: believed to be > 10 g/kg (rabbit) practically non-toxic	
Other: This product, or a component of this product, has been shown to damage red blood cells or blood forming organs, and has caused anemia in laboratory animals.				

## SECTION 12 – ECOLOGICAL INFORMATION

<b>Hazardous Ingredients</b>	<b>Aquatic Toxicity Data</b>
	Biodegradability: Estimated to be less than 40% degradation over a test period of more than 28 days. Potential to Bioaccumulation: This product is estimated to have a very slow rate of bioaccumulation.

### SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste Disposal:** This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

### SECTION 14 – TRANSPORTATION INFORMATION

**Special Shipping Information:** Not regulated

<u>Purview</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
<b>DOT</b> (Land)	Not regulated			
<b>IMO</b> (Water)	Not regulated			
<b>ICAO</b> (Air)	Not regulated			

### SECTION 15 – REGULATORY INFORMATION

<b>WHMIS Classification:</b> (Workplace Hazardous Material Information System)	Not regulated by WHMIS.
<b>SARA Title III:</b> (Superfund Amendments & Reauthorization Act)	This product and/or its components are considered non-hazardous by the following standards: OSHA Hazard Comm. Standard Classification SARA Title III Section 311 Hazardous Categorization No chemicals subject to reporting per the following standards: SARA Title III Section 302/304 Extremely Hazardous Substances. SARA Title III Section 313 Toxic Chemical. California Prop. 65 States Right-to-Know Regulations. State list: CT (Connecticut), FL (Florida), IL (Illinois), MI (Michigan), LA (Louisiana), MA (Massachusetts), NJ (New Jersey), PA (Pennsylvania), RI (Rhode Island)
<b>OSHA:</b> (Occupational Safety & Health Administration)	No Data.
<b>TSCA:</b> (Toxic Substance Control Act)	This product, or its components, are listed on, or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.
<b>VOC:</b> (volatile Organic Compounds)	No Data.
<b>CPR:</b> (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
<b>EINECS:</b> (European Inventory of Existing Commercial Chemical Substances)	This product, or its components, are listed on or are exempt from EINECS.
<b>DSL / NDSL:</b> (Canadian Domestic Substance List)(Non-Domestic Substance List)	This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List (DSL).
<b>CERCLA:</b> (Comprehensive Response Compensation & Liability Act)	No chemicals subject to report.
<b>IDL:</b> (Canadian Ingredient Disclosure List)	No Data.
<b>NFPA (HMIS) Rating:</b> (Hazardous Materials Identification System)	No Data.

### SECTION 16 – OTHER INFORMATION

Viscosity: 37 - 41 cSt at 40 °C.

The information contained herein is based on the data available to us and is believed to be correct. However, Nu-Calgon Wholesaler Inc. makes no warranty, expressed, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Nu-Calgon Wholesaler Inc. assumes no liability for injury from the use of the product described herein.



Product Name.....: RIDGID Dark Thread Cutting Oil

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- Ingestion:  
Ingestion may cause slight stomach irritation and discomfort.
- Potential Chronic Health Effects  
No further data known.
- Medical Conditions Aggravated By Exposure:  
No further data known.
- Carcinogenicity:  
This product is not listed as a known or suspected carcinogen by IARC, OSHA or the NTP.

HMIS RATING:

Health	Flammability	Reactivity	PPE
1	1	0	X

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**Section 3 – Composition / Information On Ingredients**

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Components listed in this section may contribute to the potential hazards associated with exposure to the concentrate. The product may contain additional non-hazardous or trade secret components.

<u>Component:</u>	<u>CAS #</u>	<u>% By Weight</u>
Mineral Oil	64742-54-7	> 90
Sulfur Additive Package	Mixture	< 10

**This product does not contain silicone.**

Product Name.....: RIDGID Dark Thread Cutting Oil

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### Section 4 – First Aid Measures

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#### EYE CONTACT:

Upon direct eye contact, hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. If irritation is due to exposure to mist or vapors, remove the individual to fresh air. If irritation persists, flush the eyes with clean water until the irritation subsides. If symptoms persist, contact a physician.

#### SKIN CONTACT:

Remove product from the skin by washing with a mild soap and water. Contaminated clothing should be removed to prevent prolonged exposure. If symptoms of exposure persist, contact a physician.

#### INHALATION:

Inhalation is not an expected route of exposure. If respiratory irritation or distress occurs, remove the employee to fresh air. Contact a physician or other medical professional if irritation or distress persists.

#### INGESTION:

If small amounts are ingested, first aid measures are not likely to be necessary. If larger amounts are ingested or if symptoms of ingestion occur, dilute stomach contents with two glasses of water or milk. (NOTE: Do NOT give anything by mouth to an unconscious person.) Do not induce vomiting without medical supervision. If vomiting occurs spontaneously, keep airway clear. If symptoms of ingestion persist, seek medical attention.

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### Section 5 – Fire Fighting Measures

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#### FIRE AND EXPLOSIVE PROPERTIES:

Flashpoint.....: 385°F Cleveland Open Cup  
Flammability Limits .....: LEL - N/A  
UEL - N/A

Product Name.....: RIDGID Dark Thread Cutting Oil

---

**EXTINGUISH MEDIA:**

In accordance with NFPA guidance, dry chemical, foam or CO2 fire extinguishers are all acceptable. Note that while water fog extinguishers are also acceptable, do NOT apply a direct stream of water onto burning product because it may cause spreading and increase fire intensity.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

No further data known.

**FIRE-FIGHTING PROCEDURES AND EQUIPMENT:**

Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage. See Section 8 of the MSDS for other PPE to be worn as conditions warrant.

---

**Section 6 – Accidental Release Measures**

---

**PERSONAL PRECAUTIONS:**

Use personal protection recommended in Section 8.

**ENVIRONMENTAL:**

This material is a water pollutant. Do not let spilled or leaking material enter waterways.

**CLEAN-UP MEASURES:**

Important: As with any spill or leak, before responding, ensure that you are familiar with the potential hazards and recommendations of the MSDS. Appropriate personal protective equipment must be worn.

If possible, safely contain the spill with dikes or other spill response equipment appropriate for petroleum or organic material releases. Take measures to prevent spreading of product. Note that while product will ignite, it will not readily burn. However, as a precaution, eliminate ignition sources. Prevent from entering sewers or waterways. Large volumes may be transferred to an appropriate container for proper disposal. Small volumes or residues may be soaked up with absorbents. Spill response materials should be collected for proper disposal.

Product Name.....: RIDGID Dark Thread Cutting Oil

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### Section 7 – Handling And Storage

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#### HANDLING:

As with any industrial chemical, handle the product in a manner that minimizes exposure to practicable levels. Prior to handling, consult Section 8 of this MSDS to evaluate personal protective equipment needs. Open containers slowly to relieve any pressure. Follow all other standard industrial hygiene practices.

Empty containers may contain product residue. All safety precautions taken when handling this product should also be taken when handling empty drums and containers. Keep containers closed when not in use.

Product residue in empty containers is combustible but will not readily burn. Note, however, that excessive heating or cutting of empty containers may create an ignition source sufficient to start a fire and, in extreme cases, cause an explosion.

#### STORAGE:

Protect product quality by storing indoors and away from extreme temperatures. Close all containers when not in use.

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### Section 8 – Exposure Controls / Personal Protection

---

#### EXPOSURE GUIDELINES:

##### Component

---

Mineral Oil	ACGIH TLV:	5 mg / m <sup>3</sup> (as mist)
	ACGIH STEL:	10 mg / m <sup>3</sup> (as mist)
	OSHA PEL:	5 mg / m <sup>3</sup> (as mist)
Sulfur Additive Package	No information	

Product Name.....: RIDGID Dark Thread Cutting Oil

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#### ENGINEERING CONTROLS:

Normal general ventilation is expected to be adequate. It is recommended that ventilation be designed in all instances to maintain airborne concentrations at lowest practicable levels. Ventilation should, at a minimum, prevent airborne concentrations from exceeding any exposure limits.

The user may wish to refer to 29 CFR 1910.1000(d) (2) and the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" (Appendix C) for the determination of exposure limits of mixtures. An industrial hygienist or similar professional may be consulted to confirm that the calculated exposure limits apply.

#### PERSONAL PROTECTIVE EQUIPMENT:

Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

- **Eye Protection**  
Wear eye protection appropriate to prevent eye exposure. Where splashing is not likely, chemical safety glasses with side shields are recommended. Where splashing may occur, chemical goggles or full face shield is recommended.
- **Skin Protection**  
Gloves are not normally needed during normal conditions of use. If health effects are experienced, oil or chemical resistant gloves such as butyl or nitrile are recommended. Where splashing or soaking is likely, wear oil or chemical resistant clothing to prevent exposure.
- **Respiratory Protection**  
A respirator may be worn to reduce exposure to vapors, dust or mist. Select a NIOSH/MSHA approved respirator appropriate for the type and physical character of the airborne material. A self-contained breathing apparatus is recommended in all situations where airborne contaminant concentration has not been confirmed to be below safe levels. Respirator use should comply with the OSHA Respirator Protection Standard found in 29 CFR 1910.134.
- **General Hygiene Considerations**  
Wash thoroughly after handling.



Product Name.....: RIDGID Dark Thread Cutting Oil

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### Section 9 – Physical And Chemical Properties

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Physical Appearance.....: Black  
Odor.....: Mild Petroleum  
Physical State.....: Liquid  
Water Solubility.....: Insoluble  
Specific Gravity.....: .878

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### Section 10 – Stability And Reactivity

---

#### STABILITY:

This product is stable.

#### CONDITIONS TO AVOID:

Avoid contact with incompatible materials and exposure to extreme temperatures.

#### INCOMPATIBLE MATERIALS:

This product is incompatible with strong oxidizing agents.

#### DECOMPOSITION PRODUCTS MAY INCLUDE:

Thermal decomposition products are dependent on combustion conditions. A complex mixture of airborne solid, liquid, particulates and gasses may evolve when the material burns. Combustion by-products may include:

oxides of carbon

oxides of sulfur

incompletely burned hydrocarbons as fumes and smoke

#### POSSIBILITY OF HAZARDOUS REACTIONS:

This product is not expected to polymerize

Product Name.....: RIDGID Dark Thread Cutting Oil

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### **Section 11 – Toxicological Information**

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**ACUTE:**

Oral LD<sub>50</sub>: Not determined

Inhalation LC<sub>50</sub>: Not determined

**CHRONIC:** No further toxicological data known.

**SENSITIZATION:** No further toxicological data known.

**REPRODUCTIVE EFFECTS:** No further toxicological data known.

**TERATOGENIC EFFECTS:** No further toxicological data known.

**MUTAGENICITY:** No further toxicological data known.

**SYNERGISTIC MATERIALS:** No further toxicological data known.

**CARCINOGENICITY:** This product is not listed as a known or suspected carcinogen by IARC, OSHA or the NTP.

---

### **Section 12 – Ecological Information**

---

**ECOTOXICOLOGICAL INFORMATION:**

This product has not been evaluated for ecotoxicity. As with any industrial chemical, exposure to the environment should be prevented and minimized wherever possible.

**ENVIRONMENTAL FATE:**

The degree of biodegradability and persistence of this product has not been determined.

Product Name.....: RIDGID Dark Thread Cutting Oil

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**Section 13 – Disposal Consideration**

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**WASTE DISPOSAL:**

Ensure that collection, transport, treatment and disposal of waste product and containers complies with all applicable laws and regulations. Note that use, mixture, processing or contamination of the product may cause the material to be classified as a hazardous waste. It is the responsibility of the product user or owner to determine at the time of disposal whether the product is regulated as a hazardous waste.

---

**Section 14 – Transportation Information**

---

**U.S. DOT HAZARDOUS MATERIAL INFORMATION:**

Not DOT regulated.

**CANADA TRANSPORT OF DANGEROUS GOODS:**

This material is not TDG regulated.

---

**Section 15 – Regulatory Information**

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**FEDERAL REGULATIONS:****SARA 313:**

This product contains NONE of the substances 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.

**CLEAN WATER ACT:**

This product contains mineral oil and is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

Product Name.....: RIDGID Dark Thread Cutting Oil

---

**CERCLA REPORTABLE QUANTITY:**

Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Releases of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

None to report

**TOXIC SUBSTANCE CONTROL ACT:**

The components of this product are listed on the TSCA Inventory.

**OZONE DEPLETING SUBSTANCES:**

This product contains no ozone depleting substances as defined by the Clean Air Act.

**HAZARDOUS AIR POLLUTANTS:**

Any components listed below are defined by the Federal EPA as hazardous air pollutants:

None to report

**STATE REGULATIONS**

This product contains mineral oil, and as used, may be regulated by state used oil regulations. Check with the appropriate state agency to determine whether such a regulation exists.

**CANADA**

WHMIS Classification: Not controlled under WHMIS

**DSL:**

The components of this product are listed on DSL Inventory.

Product Name.....: RIDGID Dark Thread Cutting Oil

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**Section 16 – Other Information**

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Prepared by: . . . . . Ridge Tool Company

Issue Date: . . . . . May 27, 2009

Last Revision Date: . . . . . May 27, 2009

RIDGE TOOL BELIEVES THE STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE RELIABLE BUT THEY ARE GIVEN WITHOUT WARRANTY OR GUARANTEE OF ANY KIND, EXPRESSED OR IMPLIED, AND WE ASSUME NO RESPONSIBILITY FOR ANY LOSS, DAMAGE OR EXPENSE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THEIR USE.

MATERIAL SAFETY DATA SHEET

MSDS 0083

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	RectorSeal Premium Thread Cutting Oils	Health	1
	Light or Dark	Flammability	1
		Reactivity	0
PRODUCT CODES	93111, 93192, 93272, 93392, 94111, 94192, 94272, 94392	PPI	B
CHEMICAL FAMILY	Organic		
USE	Cutting Oil		
MANUFACTURER'S NAME	The RectorSeal Corporation	EMERGENCY TELEPHONE NO.	
	2601 Spenwick Drive	Chemtrec 24 Hours	
	Houston, Texas 77055 USA	(800)424-9300 USA	
		001-527-3887 International	
DATE OF VALIDATION	October 11, 2012	TECHNICAL SERVICE TELEPHONE NO.	
DATE OF PREPARATION	October 11, 2012	(800)231-3345 or (713)263-8001	

Section 2 -- HAZARDS IDENTIFICATION

GHS CLASSIFICATION  
 PHYSICAL HAZARDS: None  
 HEALTH HAZARDS  
 Acute Toxicity:  
 Oral: Not Classified  
 Dermal: Not Classified  
 Inhalation: Not Classified  
 Skin Corrosion/Irritation: Not Classified  
 Serious Eye Damage/Eye Irritation: Not Classified  
 Respiratory or Skin Sensitization: Not Classified  
 Germ Cell Mutagenicity: Not Classified  
 Carcinogenicity: Not Classified  
 Reproductive Toxicology: Not Classified  
 Target Organ Systemic Toxicity - Single Exposure: Not Classified  
 Target Organ Systemic Toxicity - Repeated Exposure: Not Classified  
 Aspiration Toxicity: Not Classified

GHS Label elements, including precautionary statements  
 Pictogram: Aspiration Toxicity  
 Signal Word: Warning  
 Hazard statement(s)  
 H320 - Causes eye irritation.  
 H361 - Suspected of damaging fertility or the unborn child.  
 Precautionary statement(s)  
 P281 - Use personal protective equipment as required.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.  
 Remove contact lenses, if present and easy to do. Continue rinsing.

SUMMARY OF ACUTE HAZARDS  
 None known.  
 ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS  
 INHALATION  
 None known.  
 EYE CONTACT  
 Irritation, watering may occur.  
 SKIN CONTACT  
 None known.  
 INGESTION  
 May cause nausea and vomiting. Not expected to produce toxic effects.  
 SUMMARY OF CHRONIC HAZARDS  
 None known.  
 MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE  
 None known.

Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Base Oil  
 PERCENTAGE BY WEIGHT: >99  
 CAS NUMBER: 64742-53-6  
 EC# : 265-156-6

Section 4 -- FIRST AID MEASURES

-----  
Description of first aid measures

First-aid measures after inhalation :

Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of breathing difficulties administer oxygen. In case of irregular breathing or respiratory arrest provide artificial respiration. If medical advice is needed, have product container or label at hand.

-----  
First-aid measures after skin contact :

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Rinse thoroughly with plenty of water for at least 20 minutes and take medical advice. If medical advice is needed, have product container or label at hand.

-----  
First-aid measures after eye contact :

Rinse immediately and plentifully with water, also under the eyelids, for at least 20 minutes. Seek immediate medical advice. If medical advice is needed, have product container or label at hand.

-----  
First-aid measures after ingestion :

If swallowed, do not induce vomiting: seek medical advice immediately and show this container label. If swallowed, rinse mouth with water (only if the person is conscious). Drink plenty of water.

-----  
Most important symptoms and effects, both acute and delayed:

Symptoms/injuries after inhalation : Harmful by inhalation. Inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Symptoms/injuries after skin contact : Slightly irritating to skin.

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

Symptoms/injuries after eye contact : Slightly irritating to eyes.

Symptoms/injuries after ingestion : Nausea.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

-----  
Section 5 -- FIRE FIGHTING MEASURES

-----  
EXTINGUISHING MEDIA

Foam, dry chemical, carbon dioxide or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus

(SCBA) and other protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

-----  
Section 6 -- ACCIDENTAL RELEASE MEASURES

-----  
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wipe or scrape up spilled material to prevent footing hazard and place in trash.

-----  
Section 7 -- HANDLING AND STORAGE

-----  
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep container closed and upright when not in use.

OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing. Empty containers may contain residues; treat as if full and observe all products precautions. Do not reuse empty containers.

KEEP OUT OF REACH OF CHILDREN.

-----  
Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

-----  
RESPIRATORY PROTECTION (SPECIFY TYPE): None required.

VENTILATION - LOCAL EXHAUST: N/A

SPECIAL: N/A

MECHANICAL (GENERAL): N/A

OTHER: N/A

PROTECTIVE GLOVES: Wear rubber gloves.

EYE PROTECTION: Safety glasses (ANSI Z-87.1 or equivalent)

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.

WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

-----  
Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

-----  
BOILING POINT: >500 F (260 C) @ 760mm Hg  
SPECIFIC GRAVITY (H2O = 1): 0.92  
VAPOR PRESSURE (mm Hg): N/D  
MELTING POINT: N/A  
VAPOR DENSITY (AIR = 1): N/D  
EVAPORATION RATE (ETHYL ACETATE = 1): N/A  
APPEARANCE/ODOR: Amber / Mild Petroleum Odor  
SOLUBILITY IN WATER: Insoluble  
Flash POINT >284 F (140 C) SETA CC

LOWER EXPLOSION LIMIT N/D  
UPPER EXPLOSION LIMIT N/D  
VOLATILE ORGANIC COMPOUNDS(VOC)Content  
(Theoretical Percentage By Weight): 0% or (0 g/L)

=====  
Section 10 -- STABILITY AND REACTIVITY  
=====

STABILITY: Stable  
CONDITIONS TO AVOID: None known.  
INCOMPATIBILITY (MATERIALS TO AVOID): None known.  
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2 and fragmented hydrocarbons.  
HAZARDOUS POLYMERIZATION: Will not occur.

=====  
Section 11 -- TOXICOLOGY INFORMATION  
=====

CHRONIC HEALTH HAZARDS  
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

TOXICOLOGY DATA  
Ingredient Name

Base Oil  
Oral-Rat LD50:N/D  
Inhalation-Human LC50:N/D

=====  
Section 12 -- Ecological Information  
=====

ECOLOGICAL DATA  
Ingredient Name

Base Oil  
Food Chain Concentration Potential N/A  
WATERFOWL TOXICITY N/A  
BOD N/A  
AQUATIC TOXICITY N/A

=====  
Section 13 -- DISPOSAL CONSIDERATIONS  
=====

Waste Classification: Non-regulated waste oil  
Disposal Method: Used oil recycler  
Waste from this product is not considered hazardous as defined under the  
Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of in  
accordance with Federal, State, and Local regulation regarding pollution.

=====  
Section 14 -- TRANSPORTATION INFORMATION  
=====

DOT: Non-Regulated  
OCEAN (IMDG): Non-Regulated  
AIR (IATA): Non-Regulated  
WHMIS (CANADA): Non-Regulated

=====  
Section 15 -- REGULATORY INFORMATION  
=====

REGULATORY DATA  
Ingredient Name

SARA 313 N/A  
TSCA Inventory All components listed  
CERCLA RQ N/A  
RCRA Code N/A

=====  
Section 16 -- OTHER INFORMATION  
=====

This document is prepared pursuant to the OSHA Hazard Communication  
Standard (29 CFR 1910.1200). The information herein is given in good faith,  
but no warranty, expressed or implied is made. Consult RectorSeal for further  
information: (713) 263-8001



---

## 1. PRODUCT AND COMPANY IDENTIFICATION

---

### PRODUCT NAME

ROBINAIR VACUUM PUMP OIL

### OTHER NAMES

Product Number(s): 13119, 13203, 13204, 13719, 13703, 13704

### PRODUCT USE & RESTRICTIONS

Improves cold start performance of most high vacuum pumps.

### DISTRIBUTOR

Company: Service Solutions US LLC

Address: 655 Eisenhower Drive, Owatonna, MN 55060-0995 USA

Telephone: (888) 533-6127

Emergency Telephone: (800) 535-5053 (InfoTrac)

---

## 2. HAZARDS IDENTIFICATION

---

### HAZARD RATINGS

Health	0
Fire	1
Physical	0
Personal Protection	C

---

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

---

<u>Common Name/Synonyms</u>	<u>CAS/EC Number</u>	<u>Mixture</u>
Hydrotreated heavy paraffinic distillate	64742-54-7	100%

---

## 4. FIRST AID MEASURES

---

### INHALATION

Vaporization is not expected at ambient temperatures. This material is not expected to be an inhalation problem under the anticipated conditions of use. In case of overexposure, move person to fresh air. If not breathing or no heartbeat, give artificial respiration or cardiopulmonary resuscitation. Get immediate medical attention.

**SKIN CONTACT**

Wash skin thoroughly with plenty of soap and water. Immediately remove contaminated clothing. Launder contaminated clothing before reuse. Discard saturated leather gloves and shoes. If irritation persists, get medical attention.

**EYE CONTACT**

Flush eyes with clean, low-pressure water for at least 15 minutes, occasionally lifting the eyelids. Get medical attention if irritation develops or persists.

**INGESTION**

DO NOT INDUCE VOMITING. If more than a half-cup of this material is swallowed, give quantities of water and obtain medical attention. Do not give anything by mouth to an unconscious person.

**SYMPTOMS**

<u>Route of Exposure</u>	<u>Sign and Symptom</u>	<u>Primary Route</u>
Eye contact	May cause slight, temporary irritation, bases on component data	Yes
Skin contact	May cause mild irritation with prolonged or repeated exposure resulting in redness, edema, drying or cracking of skin, based on component date. Personnel with pre-existing skin conditions should take proper precautions	Yes
Inhalation	Exposure to vapors or mists of this oil may cause respiratory irritation, dizziness, and nausea. Prolonged overexposure to vapors or mists may produce chemical pneumonitis, based on component data	Yes
Ingestion	No significant adverse health effects are expected to occur upon short-term exposure based on data from components	No
Chronic Toxicity	ND	ND
Carcinogenicity	This product is formulated with mineral oils, which are considered to be severely refined and not considered to be carcinogenic under IARC. The IP346 test has not been used to evaluate these oils.	ND
Mutagenicity	ND	ND
Teratology (Birth Defect) Information	ND	ND
Reproduction Information	ND	ND

**MEDICAL ATTENTION/SPECIAL TREATMENT**

Treat symptomatically.

---

## 5. FIREFIGHTING MEASURES

---

### SUITABLE EXTINGUISHING MEDIA

Carbon dioxide, dry chemical, foam, or water spray. Water may be ineffective, but can be used to cool exposed containers. Do not use a water jet.

### SPECIFIC HAZARDS

Toxic fumes, gases, or vapors may evolve on burning.

### SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of combustion products and oxygen deficiencies. Material will float on water.

---

## 6. ACCIDENTAL RELEASE MEASURES

---

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

Ensure your own health and safety before attempting spill control or cleanup. Take the proper precautions. See Section 8 for Exposure Controls/Personal Protection and Section 13 for Disposal Considerations.

### ENVIRONMENTAL PRECAUTIONS

Component data and data based on similar materials indicates that plants and animals may experience harmful or fatal effects when coated with petroleum products.

### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Small spills may be absorbed with an inert material (e.g., dry sand or earth), then placed in a chemical waste container. Use caution, material may present a slipping hazard.

Large spills should be contained and prevented from entering all water bodies, if possible. Safely stop flow of spill. Evacuate non-essential personnel from immediate spill area. Ventilate area if spill occurs in a confined space or other poorly ventilated areas. Seek the advice of ecologists for cleanup in natural environments. This material will float on water. Absorbent materials and pads can be used. Maximize product recovery for reuse or recycling. Transfer liquids and solid diking material to separate, suitable containers for recovery or disposal. Comply with all applicable laws. Spills must be reported to the National Response Center (800-424-8802).

## 7. HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING

Keep away from heat, sparks, and flames. Use appropriate containment to avoid environmental contamination. Keep containers closed when not in use. Hands should be washed thoroughly after handling. When transferring material, use proper bonding and/or grounding procedures.

### CONDITIONS FOR SAFE STORAGE

KEEP OUT OF REACH OF CHILDREN. To avoid product degradation, water contamination should be avoided. Periods of exposure to high temperatures should be minimized.

### INCOMPATIBILITIES

Strong oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### CONTROL PARAMETERS

Respiratory protection	Not required under normal conditions.
Protective gloves	Use chemical-resistant gloves to avoid prolonged or repeated skin contact. Consult manufacturer's recommendations. Gloves should be replaced if signs of degradation or chemical breakthrough occur. Long-sleeve shirt is recommended. When leaving work area, wash hands/exposed skin with soap and water.
Eye protection	Use splash goggles or face shield. Eye wash water should be available. Hard contact lenses should not be worn.
Work/hygienic practices	Where use can result in skin contact, wash exposed area thoroughly before eating, drinking, smoking, or in food preparation. Launder contaminated clothing.
Other personal protection	As required by employer policies.

### ENGINEERING CONTROLS

Use adequate ventilation to keep oil mists of this material below applicable guideline(s)/standard(s).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Physical State: Liquid  
Color: Bright and clear

### ODOR

Slight hydrocarbon

**ODOR THRESHOLD**

ND

**pH**

ND

**MELTING POINT**

NA

**FREEZING POINT**

ND

**INITIAL BOILING POINT**

ND

**BOILING RANGE**

ND

**FLASH POINT**

216°C (421°F), COC D92

**EVAPORATION RATE (ETHYL ACETATE=1)**

ND

**FLAMMABILITY**

Solid: ND

Gas: ND

**UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS**

LEL: ND

UEL: ND

**VAPOR PRESSURE (mmHg)**

ND

**VAPOR DENSITY (AIR=1)**

ND

**RELATIVE DENSITY**

ND

**SOLUBILITY(IES)**

In water: Negligible

**PARTITION COEFFICIENT: N-OCTANOL/WATER**

ND

**AUTOIGNITION TEMPERATURE**

ND

**DECOMPOSITION TEMPERATURE**

ND

---

**10. STABILITY AND REACTIVITY**

---

**CHEMICAL STABILITY**

Material is considered stable at room temperature and pressure. Avoid heat, sparks, and open flame.

**POSSIBILITY OF HAZARDOUS REACTIONS**

Will not occur

**CONDITIONS TO AVOID**

Heat, ignition sources (heat, spark, flame), incompatible materials

**INCOMPATIBLE MATERIALS**

Strong oxidizing agents

**HAZARDOUS DECOMPOSITION PRODUCTS**

Smoke, carbon monoxide, carbon dioxide, aldehydes, and other products of incomplete combustion including the oxides of nitrogen and sulfur.

---

**11. TOXICOLOGICAL INFORMATION**

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There is no LD<sub>50</sub> or LC<sub>50</sub> information available for humans. Kerosene has been shown to have acute oral toxicity when tested on rats (LD<sub>50</sub>=15 g/kg) and on guinea pigs (LD<sub>50</sub>=20 g/kg), and low oral toxicity (LD<sub>50</sub>=2.8 g/kg) when tested on rabbits. The product may contain trace amounts of byproducts or impurities, including ethylbenzene and naphthalene, which are known to the State of California to cause cancer.

---

**12. ECOLOGICAL INFORMATION**

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**ECOTOXICITY**

Aquatic: ND

Terrestrial: ND

**PERSISTENCE AND DEGRADABILITY**

NA

**BIOACCUMULATIVE POTENTIAL**

NA

**MOBILITY IN SOIL**

NA

**OTHER ADVERSE EFFECTS**

NA

---

**13. DISPOSAL CONSIDERATIONS**

---

**PRODUCT DISPOSAL**

Dispose of in accordance with all local, state, and Federal regulations. Conditions of use may cause this material to become a "hazardous waste," as defined by state or federal laws. Use approved treatment, transporters, and disposal sites in compliance with all applicable laws.

**PACKAGING DISPOSAL**

Dispose of in accordance with all local, state, and Federal regulations. Empty containers contain residue, which may exhibit the hazards of the product. Do not attempt to refill or clean containers because residue is difficult to remove. Do not pressurize, cut, heat, or weld containers

---

**14. TRANSPORT INFORMATION**

---

**UN NUMBER**

Not regulated

**UN PROPER SHIPPING NAME**

NA

**TRANSPORT HAZARD CLASS(ES)**

NA

**PACKING GROUP**

NA

**MARINE POLLUTANT (YES/NO)**

NA

**SPECIAL PRECAUTIONS**

NA

**15. REGULATORY INFORMATION**

---

**TSCA**

All ingredients are listed on the TSCA inventory.

**SARA 313**

None listed

**CERCLA RQ**

NA

**RCRA CODE**

NA

**16. OTHER INFORMATION**

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**CONTACT**

SPX Service Solutions - (888) 533-6127

**LEGEND**

ND = Not determined

NA = Not applicable

The information provided herein is believed to be accurate and represents the best information currently available. However, SPX Corporation makes no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and assumes no liability resulting from use of (M)SDS information.

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review.

The (M)SDS is a hazard communication tool and should be used to assist in 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.

For detailed advice on personal protective equipment, refer to the following U.S. Regulations and Standards:

- OSHA Standards - 29 CFR:
- 1910.132 - Personal Protective Equipment - General requirements



- 1910.133 - Eye and face protection
- 1910.134 - Respiratory Protection
- 1910.136 - Occupational foot protection
- 1910.138 - Hand Protection
- Eye and face protection - ANSI Z87.1
- Foot protection - ANSI Z41

**RESPIRATORS MUST BE NIOSH APPROVED.**



## Material Safety Data Sheet

### 1 - Chemical Product and Company Identification

<b>Manufacturer:</b> WD-40 Company <b>Address:</b> 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California, USA 92138 -0607  <b>Telephone:</b> <b>Emergency only:</b> 1-888-324-7596 (PROSAR) <b>Information:</b> 1-888-324-7596 <b>Chemical Spills:</b> 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)	<b>Chemical Name:</b> Organic Mixture  <b>Trade Name:</b> WD-40 Aerosol <b>NOT FOR SALE IN CALIFORNIA</b>  <b>Product Use:</b> Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion  <b>MSDS Date Of Preparation:</b> 6/8/12
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### 2 – Hazards Identification

<b>Emergency Overview:</b> <b>DANGER!</b> Flammable aerosol. Contents under pressure. Harmful or fatal if swallowed. If swallowed, may be aspirated and cause lung damage. May cause eye irritation. Avoid eye contact. Use with adequate ventilation. Keep away from heat, sparks and all other sources of ignition.  <b>Symptoms of Overexposure:</b> <b>Inhalation:</b> 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. <b>Skin Contact:</b> Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis. <b>Eye Contact:</b> Contact may be irritating to eyes. May cause redness and tearing. <b>Ingestion:</b> 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. <b>Chronic Effects:</b> None expected. <b>Medical Conditions Aggravated by Exposure:</b> Preexisting eye, skin and respiratory conditions may be aggravated by exposure.  <b>Suspected Cancer Agent:</b> Yes    No <input checked="" type="checkbox"/>
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### 3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent
Aliphatic Hydrocarbon	64742-47-8	45-50
Petroleum Base Oil	64742-58-1 64742-53-6 64742-56-9 64742-65-0	<25
LVP Aliphatic Hydrocarbon	64742-47-8	12-18
Carbon Dioxide	124-38-9	2-3
Non-Hazardous Ingredients	Mixture	<10

### 4 – First Aid Measures

<b>Ingestion (Swallowed):</b> Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately. <b>Eye Contact:</b> 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.
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**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.

### 5 – Fire Fighting Measures

**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.

**Special Fire Fighting Procedures:** 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.

**Unusual Fire and Explosion Hazards:** 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.

### 6 – Accidental Release Measures

Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area. 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

**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.

**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.

### 8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
Aliphatic Hydrocarbon	1200 mg/m <sup>3</sup> TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m <sup>3</sup> TWA, 10 mg/m <sup>3</sup> STEL ACGIH TLV 5 mg/m <sup>3</sup> TWA OSHA PEL
LVP Aliphatic Hydrocarbon	1200 mg/m <sup>3</sup> TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA (OSHA/ACGIH), 30,000 ppm STEL (ACGIH)
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. 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

**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

Boiling Point:	361 - 369°F (183 - 187°C)	Specific Gravity:	0.8 – 0.82 @ 60°F
Solubility in Water:	Insoluble	pH:	Not Applicable
Vapor Pressure:	95-115 PSI @ 70°F	Vapor Density:	Greater than 1
Percent Volatile:	<50%	VOC:	412 grams/liter (49.5%)
Coefficient of Water/Oil Distribution:	Not Determined	Appearance/Odor	Light amber liquid/mild odor
Flash Point:	122°F (49°C) Tag Closed Cup (concentrate)	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8.0%
Pour Point:	-63°C (-81.4°F ) ASTM D-97	Kinematic Viscosity:	2.79-2.96cSt @ 100°F

### 10 – Stability and Reactivity

**Stability:** Stable  
**Hazardous Polymerization:** Will not occur.  
**Conditions to Avoid:** Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.  
**Incompatibilities:** Strong oxidizing agents.  
**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide.

### 11 – Toxicological Information

The oral toxicity of this product is estimated to be greater than 5,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard. None of the components of this product is listed as a carcinogen or suspected carcinogen or is considered a reproductive hazard.

### 12 – Ecological Information

No data is currently available.

### 13 - Disposal Considerations

If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). 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: Consumer Commodity, ORM-D  
 After 1/1/2014 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, 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:** 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: 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 contain chemicals regulated under California Proposition 65.

**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:** 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 B-5 (Flammable Aerosol)

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 – 4 (severe hazard), Reactivity – 0 (minimal hazard)**

Prepared by: Industrial Health and Safety Consultants, Shelton, CT

SIGNATURE: \_\_\_\_\_ *JK* \_\_\_\_\_

TITLE: Regulatory Affairs Manager

REVISION DATE: June 2012

SUPERSEDES: March 2010

# Material Safety Data Sheet

## MC 2215PB

### 1. Product and company identification

<b>Material uses</b>	: Industrial applications: Lubricants; grease.
<b>Manufacturer</b>	: Metalcote Division of Chemtool Incorporated 801 West Rockton Road Rockton, IL 61072 U.S.A. Tel: +01 815.957.4140 Fax: +01 815.624.0292
<b>Product code</b>	: MBK99000A0
<b>MSDS #</b>	: 2208
<b>Validation date</b>	: 6/20/2013.
<b>In case of emergency</b>	: INFOTRAC U.S. and Canada - 800.535.5053 Outside the U.S. and Canada - +01 352.323.3500

### 2. Hazards identification

#### Emergency overview

<b>Physical state</b>	: Solid. [grease]
<b>Color</b>	: Black.
<b>Odor</b>	: Mild. Petroleum oil
<b>Signal word</b>	: WARNING!
<b>Hazard statements</b>	: CAUSES EYE AND SKIN IRRITATION.
<b>Precautionary measures</b>	: Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: May cause skin irritation.
<b>Eyes</b>	: May cause mild eye irritation.

#### Potential chronic health effects

<b>Chronic effects</b>	: Contains material that may cause target organ damage, based on animal data.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.

## 2. Hazards identification

- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Target organs** : Contains material which may cause damage to the following organs: lungs, upper respiratory tract, skin, eyes.

### Over-exposure signs/symptoms

- Inhalation** : No specific data.
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:  
irritation  
redness
- Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

### United States

Name	CAS number	%
Distillates (petroleum), hydrotreated heavy naphthenic Mineral Oils	64742-52-5 mixture	40-60 30-50

### Canada

Name	CAS number	%
Distillates (petroleum), hydrotreated heavy naphthenic Mineral Oils carbon black respirable	64742-52-5 mixture 1333-86-4	40-60 30-50 <0.5

### Mexico

#### Classification

Name	CAS number	UN number	%	IDLH	H	F	R	Special
Distillates (petroleum), hydrotreated heavy naphthenic Mineral Oils	64742-52-5	Not available.	40-60	2500 mg/m <sup>3</sup>	1	1	0	-
	mixture	Not available.	30-50	2500 mg/m <sup>3</sup>	1	1	0	-

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

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- 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.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product** : No specific fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : 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.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides
- 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** : 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 (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 caused environmental pollution (sewers, waterways, soil or air).
- Methods for 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.



## 6. Accidental release measures

- 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 for emergency contact information and Section 13 for waste disposal.

## 7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. 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.
- Storage** : 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

### United States

Ingredient	Exposure limits
Distillates (petroleum), hydrotreated heavy naphthenic	<b>ACGIH TLV (United States, 3/2012).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction <b>NIOSH REL (United States, 6/2009).</b> TWA: 5 mg/m <sup>3</sup> 10 hours. Form: Mist STEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist <b>OSHA PEL (United States, 6/2010).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
Mineral Oils	<b>ACGIH TLV (United States, 3/2012).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction <b>NIOSH REL (United States, 6/2009).</b> TWA: 5 mg/m <sup>3</sup> 10 hours. Form: Mist STEL: 10 mg/m <sup>3</sup> 15 minutes. Form: Mist <b>OSHA PEL (United States, 6/2010).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.

### Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	
carbon black respirable	US ACGIH 3/2012	-	3	-	-	-	-	-	-	-	[a]
	AB 4/2009	-	3.5	-	-	-	-	-	-	-	
	BC 9/2011	-	3	-	-	-	-	-	-	-	[b]
	ON 7/2010	-	3.5	-	-	-	-	-	-	-	
	QC 9/2011	-	3.5	-	-	-	-	-	-	-	
Distillates (petroleum), hydrotreated heavy naphthenic	US ACGIH 3/2012	-	5	-	-	-	-	-	-	-	[a]
	ON 7/2010	-	5	-	-	10	-	-	-	-	[c]
	QC 9/2011	-	5	-	-	10	-	-	-	-	[c]
Mineral Oils	US ACGIH 3/2012	-	5	-	-	-	-	-	-	-	[a]

## 8. Exposure controls/personal protection

	AB 4/2009	-	5	-	-	10	-	-	-	-	[d]
	ON 7/2010	-	5	-	-	10	-	-	-	-	[c]
	QC 9/2011	-	5	-	-	10	-	-	-	-	[c]

Form: [a]Inhalable fraction [b]Inhalable [c]mist [d]Mist

### Mexico

#### Occupational exposure limits

Ingredient	Exposure limits
Distillates (petroleum), hydrotreated heavy naphthenic	<b>NOM-010-STPS (Mexico, 9/2000).</b> LMPE-PPT: 5 mg/m <sup>3</sup> 8 hours. Form: mist LMPE-CT: 10 mg/m <sup>3</sup> 15 minutes. Form: mist
Mineral Oils	<b>NOM-010-STPS (Mexico, 9/2000).</b> LMPE-PPT: 5 mg/m <sup>3</sup> 8 hours. Form: mist LMPE-CT: 10 mg/m <sup>3</sup> 15 minutes. Form: mist

Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

**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.

#### Personal protection

**Respiratory** : 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.

**Hands** : 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.

**Eyes** : 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 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** : 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.

## 8. Exposure controls/personal protection

**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.

## 9. Physical and chemical properties

**Physical state** : Solid. [grease]  
**Flash point** : Not available.  
**Auto-ignition temperature** : Not available.  
**Flammable limits** : Not available.  
**Color** : Black.  
**Odor** : Mild. Petroleum oil  
**pH** : Not applicable.  
**Boiling/condensation point** : Not available.  
**Melting/freezing point** : Not available.  
**Density** : 0.9 g/cm<sup>3</sup>  
**Vapor pressure** : Not available.  
**Vapor density** : Not available.  
**Volatility** : Not available.  
**Evaporation rate** : Not available.  
**Viscosity** : Not available.  
**Dispersibility properties** : Not available.  
**Solubility** : Insoluble in the following materials: cold water.

## 10. Stability and reactivity

**Chemical stability** : The product is stable.  
**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.  
**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### United States

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic Mineral Oils	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Chronic toxicity

**Conclusion/Summary** : Contains material that may cause target organ damage, based on animal data.

## 11. Toxicological information

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Distillates (petroleum), hydrotreated heavy naphthenic	Skin - Severe irritant	Rabbit	-	500 milligrams	-

### Conclusion/Summary

- Skin** : May cause skin irritation.
- Eyes** : May cause eye irritation.
- Respiratory** : Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation.

### Sensitizer

#### Conclusion/Summary

- Skin** : No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.
- Respiratory** : Sensitization not suspected for humans.

### Carcinogenicity

#### Conclusion/Summary

- : There are no data available on the mixture itself. Carcinogenicity not suspected for humans.

### Mutagenicity

#### Conclusion/Summary

- : There are no data available on the mixture itself. Mutagenicity not suspected for humans.

### Teratogenicity

#### Conclusion/Summary

- : There are no data available on the mixture itself. Teratogenicity not suspected for humans.

### Reproductive toxicity

#### Conclusion/Summary

- : There are no data available on the mixture itself. Not considered to be dangerous to humans, according to our database.

## Canada

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
carbon black respirable Distillates (petroleum), hydrotreated heavy naphthenic Mineral Oils	LD50 Oral	Rat	>15400 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

- Conclusion/Summary** : No known significant effects or critical hazards.

### Chronic toxicity

#### Conclusion/Summary

- : Contains material that may cause target organ damage, based on animal data.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Distillates (petroleum), hydrotreated heavy naphthenic	Skin - Severe irritant	Rabbit	-	500 milligrams	-

### Conclusion/Summary

## 11. Toxicological information

- Skin** : May cause skin irritation.  
**Eyes** : May cause eye irritation.  
**Respiratory** : Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation.

### Sensitizer

#### **Conclusion/Summary**

- Skin** : No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.  
**Respiratory** : Sensitization not suspected for humans.

### Carcinogenicity

#### **Conclusion/Summary**

- : There are no data available on the mixture itself. Carcinogenicity not suspected for humans.

### Mutagenicity

#### **Conclusion/Summary**

- : There are no data available on the mixture itself. Mutagenicity not suspected for humans.

### Teratogenicity

#### **Conclusion/Summary**

- : There are no data available on the mixture itself. Teratogenicity not suspected for humans.

### Reproductive toxicity

#### **Conclusion/Summary**

- : There are no data available on the mixture itself. Not considered to be dangerous to humans, according to our database.

### Mexico

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic Mineral Oils	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

#### **Conclusion/Summary**

- : No known significant effects or critical hazards.

### Chronic toxicity

#### **Conclusion/Summary**

- : Contains material that may cause target organ damage, based on animal data.

### Irritation/Corrosion

Product/ingredient name	Result	Score	Score	Exposure	Observation
Distillates (petroleum), hydrotreated heavy naphthenic	Skin - Severe irritant	Rabbit	-	500 milligrams	-

#### **Conclusion/Summary**

- Skin** : May cause skin irritation.  
**Eyes** : May cause eye irritation.  
**Respiratory** : Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation.

### Sensitizer

#### **Conclusion/Summary**

## 11. Toxicological information

- Skin** : No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.
- Respiratory** : Sensitization not suspected for humans.
- Carcinogenicity**
- Conclusion/Summary** : There are no data available on the mixture itself. Carcinogenicity not suspected for humans.
- Mutagenicity**
- Conclusion/Summary** : There are no data available on the mixture itself. Mutagenicity not suspected for humans.
- Teratogenicity**
- Conclusion/Summary** : There are no data available on the mixture itself. Teratogenicity not suspected for humans.
- Reproductive toxicity**
- Conclusion/Summary** : There are no data available on the mixture itself. Not considered to be dangerous to humans, according to our database.

## 12. Ecological information

- Ecotoxicity** : Not readily biodegradable.
- United States**
- Aquatic ecotoxicity**
- Conclusion/Summary** : There are no data available on the mixture itself.
- Persistence/degradability**
- Conclusion/Summary** : This product has not been tested for biodegradation. Not readily biodegradable.
- Canada**
- Aquatic ecotoxicity**
- Conclusion/Summary** : There are no data available on the mixture itself.
- Persistence/degradability**
- Conclusion/Summary** : This product has not been tested for biodegradation. Not readily biodegradable.
- Mexico**
- Aquatic ecotoxicity**
- Conclusion/Summary** : There are no data available on the mixture itself.
- Persistence/degradability**
- Conclusion/Summary** : This product has not been tested for biodegradation. Not readily biodegradable.

## 13. Disposal considerations

- Waste disposal** : 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.

## 13. Disposal considerations

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

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
Mexico Classification	Not regulated.	-	-	-		-
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG\* : Packing group

## 15. Regulatory information

### United States

**HCS Classification** : Irritating material  
Target organ effects

**U.S. Federal regulations** : TSCA 8(a) IUR Exempt/Partial exemption: Not determined

**United States inventory (TSCA 8b)**: All components are listed or exempted.

**SARA 302/304/311/312 extremely hazardous substances**: No products were found.

**SARA 302/304 emergency planning and notification**: No products were found.

**SARA 302/304/311/312 hazardous chemicals**: No products were found.

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.

**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 313

## 15. Regulatory information

	Product name	CAS number	Concentration
<b>Form R - Reporting requirements</b>	: No listed substance		
<b>Supplier notification</b>	: No listed substance		

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

### State regulations

<b>Connecticut Hazardous Material Survey</b>	: None of the components are listed.
<b>Illinois Chemical Safety Act</b>	: None of the components are listed.
<b>Louisiana Reporting</b>	: None of the components are listed.
<b>Massachusetts Spill</b>	: None of the components are listed.
<b>Minnesota Hazardous Substances</b>	: None of the components are listed.
<b>New York Acutely Hazardous Substances</b>	: None of the components are listed.
<b>Pennsylvania RTK Hazardous Substances</b>	: None of the components are listed.

### California Prop. 65

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

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
carbon black respirable	Yes.	No.	No.	No.

**United States inventory (TSCA 8b)** : All components are listed or exempted.

### Canada

**WHMIS (Canada)** : Class D-2A: Material causing other toxic effects (Very toxic).

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory; DSL/ NDSL** : All components are listed or exempted.

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.

### Mexico

**Classification** :



## 15. Regulatory information



### International regulations

#### International lists

- : **Australia inventory (AICS)**: All components are listed or exempted.
- : **China inventory (IECSC)**: All components are listed or exempted.
- : **Japan inventory**: Not determined.
- : **Korea inventory**: All components are listed or exempted.
- : **Malaysia Inventory (EHS Register)**: Not determined.
- : **New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.
- : **Philippines inventory (PICCS)**: All components are listed or exempted.
- : **Taiwan inventory (CSNN)**: Not determined.
- : **Europe inventory** : All components are listed or exempted.

**Chemical Weapons Convention List Schedule I Chemicals** : Not listed

**Chemical Weapons Convention List Schedule II Chemicals** : Not listed

**Chemical Weapons Convention List Schedule III Chemicals** : Not listed

## 16. Other information

**Label requirements** : CAUSES EYE AND SKIN IRRITATION.

**Hazardous Material Information System (U.S.A.)** :

Health	*	1
Flammability		1
Physical hazards		0
		B

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.)** :



## 16. Other information

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.

**Date of issue** : 6/20/2013.  
**Date of previous issue** : No previous validation.  
**Version** : 1  
**Prepared by** : Regulatory Department, Chemtool Inc.

✔ Indicates information that has changed from previously issued version.

### 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.



# Material Safety Data Sheet Gruvlok Xtreme Temperature Lubricant

Issue Date: July 2006 (Revised: November 2010)

## SECTION I - PRODUCT AND COMPANY INFORMATION

Product Name: Gruvlok Xtreme Temperature Lubricant  
Product Synonyms: Gasket grease  
Company Identification: ANVIL INTERNATIONAL, LLC  
2 HOLLAND WAY  
EXTER, NH 03833  
Contact: Corporate  
Emergency Telephone: (631) 345-3000  
Telephone: (603) 418-2800  
Fax: (603) 418-2833  
Internet: www.anvilintl.com

Note: The purpose of this MSDS is to provide safe handling, shipping and disposal information for users of the product. It is not intended to, nor does it, provide complete or extensive toxicological data on the product or its components. Users who require this information are referred to primary suppliers of the ingredients of interest.

## SECTION II - COMPOSITION AND INFORMATION ON INGREDIENTS

Component Name	CAS No.	Concentration
Polydimethylsiloxane	83148-62-9	> 70%
Fumed Silica	112945-52-5	< 20%
Polytetrafluoroethylene	9002-84-0	< 5%

## SECTION III - HAZARDS IDENTIFICATION

OSHA Hazard Classification: No warning statements required.  
Routes of Entry: Inhalation, skin contact, ingestion  
Chemical Interactions: Avoid contact with all oxidizing agents, strong acids and bases.

## SECTION IV - FIRST AID & EFFECTS OF OVEREXPOSURE

Inhalation: Not an expected route of entry. Remove individual to fresh air. If not breathing, give artificial respiration or oxygen as appropriate. Keep patient warm. Seek immediate medical advice. Overexposure may cause irritation of the mucous membranes and respiratory tract.

Skin Contact: Flush skin thoroughly with soap and water. Rinse thoroughly. Seek medical advice if contact was extensive and irritation develops. Overexposure: extended periods of contact with skin can lead to irritation and dermatitis.

Eyes: Immediately flush eyes with plenty of water while holding eyelids apart. Seek immediate medical advice. Exposure to eyes may cause redness, irritation, discomfort or tearing.

Ingestion: Do not induce vomiting. Seek immediate medical advice. Never give anything by mouth to an unconscious person. Symptoms may include: headache, dizziness, nausea, intestinal disorders and unconsciousness. Not an expected route of entry. Ingestion may cause abdominal pains, cramping, nausea and vomiting.

## SECTION V - FIRE FIGHTING MEASURES

Flammability Summary: Heavy grease • Flash Point: 526°F / 275°C  
Fire/Explosion Hazards: This material is not considered a potential fire and explosion hazard under normal operating conditions.  
Extinguishing Media: Foam, dry chemical or CO2. Water spray may be used to cool containers. Do not allow contaminated water to enter sewers or waterways.

## **SECTION V - FIRE FIGHTING MEASURES (continued)**

Fire Fighting Instructions: In case of fire, use normal fire fighting equipment including a NIOSH approved self-contained breathing apparatus (SCBA). Use water to cool containers.

Hazardous Combustion Products: Under fire conditions: formaldehyde

## **SECTION VI - ACCIDENTAL RELEASE MEASURES**

Personal Protection for  
Emergency Situations: Evacuate the area of all unnecessary personnel. Eliminate any ignition sources until the area is determined to be free from explosion and fire hazards. Contain the release and eliminate its source if this can be done safely. Wear protective clothing. Keep unprotected persons away from spill.

### **Spill Mitigation Procedures**

Air Release: Low volatility makes this hazard unlikely. Provide adequate ventilation. Keep away from ignition sources.

Water Release: Contain all liquid for treatment and/or disposal as a (potential) hazardous waste. Notify all downstream users of possible contamination. Keep away from ignition sources. Do not flush to sewer! US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of stipulated quantities. US Coast Guard National Response Center is 800-424-8802.

Land Release: Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Decontaminate all clothing and the spill area using a detergent and flush with large amounts of water. Contain all contaminated water for disposal and/or treatment.

Additional Spill information: Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section XII, Disposal Considerations.

## **SECTION VII - HANDLING AND STORAGE**

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash with soap and water.

Storage: Keep container tightly closed. Store in a cool area away from ignition sources and oxidizers. No special precautions need be taken if product is handled according to directions.

## **SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ventilation: Local exhaust ventilation or other engineering controls are normally NOT necessary when handling or using this product. General exhaust ventilation is usually sufficient for general worker safety and comfort. Explosion proof motors and fans are not required for unheated handling.

Respirator Type(s): Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.

Skin: Wear impervious gloves (butyl rubber, Viton, e.g.) to avoid skin contact. Follow good industrial hygiene practices.

Eyes: Use chemical safety glasses with side shields, safety goggles and/or a full face shield where splashing is possible.

Protective Clothing Type: Impervious

## **SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State:	Grease	Octanol/Water Coefficient:	No data
Color:	White	Water Solubility:	Insoluble
Odor:	Odorless	Bulk Density:	NA
Molecular Weight:	Not applicable to mixtures	Specific Gravity (68°F):	0.88
pH (@25°C):	NA	Vapor Density (Air=1):	No Data

### **SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES (continued)**

Explosive Limits: No data. Low volatility makes ambient explosive vapor concentrations impossible.  
Vapor Pressure (@ 20°C): < 1  
Evaporation Rate (Estimated): < 1  
Flash Point, (TCC, Deg.F)  
(Estimated): 526°F/275°C  
Volatiles % by vol.: Negligible  
Approximate Boiling Point (Deg.F) NA

### **SECTION X - STABILITY AND REACTIVITY**

#### Stability and Reactivity

Summary: Stable under normal conditions

#### Reactive Properties:

Sensitivity to mechanical shock: None

Hazardous Polymerization: Will not occur

Conditions to Avoid: Ignition sources, open flames.

Chemical Incompatibility: Strong acids or bases.

Incompatible materials: No data available

#### Hazardous Decomposition

Products: Decomposition type: oxidativethermal:formaldehyde

Decomposition Temperature: No data

Product May Be Unstable At

Temperatures Above: No data

### **SECTION XI - TOXICOLOGICAL INFORMATION**

#### Component Animal Toxicology:

Oral LD50 value: No data

Dermal LD50 value: No data

Inhalation LC50 value: No data

Product Animal Toxicity: No data

Skin Irritation: This material is expected to be slightly irritating to the skin and mucous membranes.

Eye Irritation: This material is expected to be irritating.

#### Reproductive and

Developmental Toxicity: No reproductive or developmental risk to humans is expected from exposure to this product.

Component Data: All data refer to finished product

Mutagenicity: Not known or reported to be mutagenic.

Carcinogenicity: This chemical is not known or reported to be carcinogenic by any reference source including IARC, EPA, OSHA, NTP, or ACGIH.

### **SECTION XII - ECOLOGICAL INFORMATION**

Ecological Toxicity Values: Do not allow this material to be released to the environment without appropriate governmental permits.

Environmental Fate: No information found

Environmental Toxicity: No information found

### **SECTION XIII - DISPOSAL CONSIDERATIONS**

Consult current local, state and national regulations to ensure proper disposal.

Waste Disposal Summary: Product as made does not qualify as an "Unlisted Hazardous Waste" for disposal situations.

Disposal Methods: Dispose of in accordance with local, state and federal regulations for hazardous waste.

**SECTION XIV - TRANSPORTATION INFORMATION**

Proper Shipping Name, Hazard Class, UN/NA Number Packing Group, Emergency Response Guide Number	Not regulated
Labels required per 49 CFR 172.101	None
Size for "Limited quantity" per 49 CFR 173.150-.155	NA
Reportable Quantity ("RQ") per 49 CFR 172.101	None
Air (IATA/ICAO) : Passenger & Cargo	NA
Effective Jan. 1, 2001 Cargo only	NA
Special Provisions	NA
Emergency Response Group Code	NA

**SECTION XV - REGULATORY INFORMATION****United States:**

Toxic Substance Control Act: The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

Superfund Amendments and Reauthorization Act (SARA) Title III:

See Section III of this MSDS.

Safety Phrases: Keep container tightly closed in a well ventilated area, away from sources of ignition. No smoking. Do not breathe gas, fumes, vapor or spray from this product. Do not empty into drains.

**State Right-to-Know Regulations Status of Ingredients:**

Pennsylvania: No Information

New Jersey: No Information

Massachusetts: No Information

**Hazard Category Classifications and Ratings:**

HMIS Hazard Ratings: Health 1, Fire 1, Instability 0, Other B (Goggles, gloves)

NFPA 704 Hazard Ratings: Health 1, Flammability 1, Reactivity 0, Special NA

Hazard Ratings: Least: 0, Slight: 1, Moderate: 2, High: 3, Extreme: 4

**SECTION XV - REGULATORY INFORMATION**

This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard, 29 CFR 1910.1200. The information in this MSDS should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. We believe this information to be reliable and up to date as of its publication date, but make no warranty that it is. If this MSDS is more than three years old you should contact the supplier to make certain that the information is current.

The information contained in this MSDS was obtained from sources which we believe to be reliable. However, the information is provided without any representation or warranty, express or implied, regarding the accuracy or correctness.

The conditions or methods of handling, storage, use and 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.

**Product Trade Name: ECHO 2-CYCLE ENGINE OIL 32:1**



## Material Safety Data Sheet

### Section 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Trade Name: ECHO 2-CYCLE ENGINE OIL 32:1**

**Company Identification**

Spectrum Lubricants Corporation  
500 Industrial Park Drive  
Selmer, TN 38375-3276  
United States of America

**Emergency Response**

North America: CHEMTREC (800) 424-9300 after 5:00pm CST  
Or (703) 527-3887

**Health Emergency**

USA: (800) 264-6457 or (731) 645-4972

**Product Information**

MSDS Requests: (800) 264-6457 or (731) 645-4972  
Technical Information: (800) 264-6457 or (731)645-4972  
General Information: [vswedley@spectrumcorporation.com](mailto:vswedley@spectrumcorporation.com)

<b>Product Family</b>	<b>Petroleum Lubricating Oil</b>
<b>CAS Number</b>	<b>Mixture</b>

Note: Petroleum lubricating oils with a flashpoint above 200°F, are not regulated by D.O.T standards.

### Section 2 HAZARDS IDENTIFICATION

#### IMMEDIATE HEALTH EFFECTS

<b>Inhalation:</b>	Inhalation of fumes may result in dizziness, headache and respiratory irritation.
<b>Eye Contact:</b>	Contact with eyes may cause minimal irritation.
<b>Skin Contact:</b>	Mild irritation may occur with prolonged or repeated contact.
<b>Ingestion:</b>	Slightly toxic. Pulmonary aspiration hazard if vomiting occurs.
<b>TLV:</b>	5mg/m <sup>3</sup> as mist. ACGIH 1984-85.
<b>Chronic Effects:</b>	Ingredients of this product are <u>not</u> listed as potential carcinogens in

## Product Trade Name: ECHO 2-CYCLE ENGINE OIL 32:1

N.T.P. Annual Report on Carcinogens, I.A.R.C. Monographs, or by O.S.H.A. HCS (g) (2) (vii).

### Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	COMPONENTS	CAS Number	EU Number	Concentration (%)
Benzenesulfonic acid, propenated, calcium salt, overbased	Performance Additive Mixture	68610-84-4	271-877-7	1.0 – 3.0
Benzenesulfonic acid, C10-60-alkyl derivs., calcium salts		90194-636-7	290-636-7	
Phenol, 2,2'-polythiobis[4-C8-30-alkyl derivs., calcium salts, overbased		90480-91-4	291-829-9	
Distillates (petroleum), hydrotreated light	Solvent	64742-47-8	265-149-8	5-10
Distillates (petroleum), hydrotreated heavy paraffinic	Base Oil	64742-54-7	265-157-1	82-92
N,N'-di-sec-butyl-p-phenylenediamine	Fuel Stabilizer	101-96-2	202-992-2	<0.3

Note that the chemical identity of some or all of the above components is considered confidential business information and is being withheld as permitted by 29CFR 1910.1200 and various State Right-To-Know Laws.

### Section 4 FIRST AID MEASURES

**Skin:** Wash skin with soap and warm water. Wash clothing before re-use.  
**Eye:** If splashed into eyes flush eyes with clear water for five (5) minutes.  
**Inhalation:** If overcome by fumes remove from exposure immediately.  
**Ingestion:** If ingested, do not induce vomiting. Call a physician.

### Section 5 FIRE FIGHTING MEASURES

#### PROTECTION OF FIRE FIGHTERS:

##### Fire Fighting Instructions:

For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self contained breathing apparatus.

**Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.



## Product Trade Name: ECHO 2-CYCLE ENGINE OIL 32:1

**Special Firefighting Procedures:** Cool exposed containers with water spray.  
**Unusual Fire and Explosion Hazards:** Pressure increase in over heated closed containers. Cool containers with water spray.

### Section 6 ACCIDENTAL RELEASE MEASURES

**Spill Procedures:** Remove ignition sources. Recover Liquid. Add absorbent to spill area. Ventilate confined spaces. Advise authorities if product enters sewers, etc.

**Waste Disposal:** Assure conformity with applicable disposal regulations. Dispose of absorbed material at approved waste site.

#### **Precautionary Measures:**

Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Wash thoroughly after handling.

Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

### Section 7 HANDLING AND STORAGE

#### **General Storage Information:**

Keep container closed when not in use. Do not store with strong oxidizing agents. Do not store at elevated temperatures.

#### **Container Warnings:**

Empty containers retain product residue (solid, liquid, and/or vapor) 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 sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

### Section 8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

COMPONENTS	Regulatory Agency	Exposure Limit
Performance Additive Mixture	OSHA/ACGIH	5mg/m3 Mist
Solvent	OSHA/ACGIH	5mg/m3 Mist
Base Oil	OSHA/ACGIH	5mg/m3 Mist
Fuel Stabilizer	OSHA/ACGIH	Not Established

**Ventilation Procedure:** Ventilate as needed to comply with exposure limit.

## Product Trade Name: ECHO 2-CYCLE ENGINE OIL 32:1

**Gloves Protection:** Use impervious gloves to avoid repeated/prolonged skin contact.

**Eye Protection:** Use goggles/face shield to avoid eye contact.

**Work/Hygienic Practices:** If clothing becomes contaminated, change to fresh clean clothing. Do not wear until thoroughly laundered.

### Section 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Vapor Pressure (mmHg) at 20°C:</b>	<b>&lt;1</b>
<b>Specific Gravity at 60°F:</b>	<b>0.93</b>
<b>Water Solubility:</b>	<b>Negligible</b>
<b>Boiling Point:</b>	<b>600+°F</b>
<b>Vapor Density (Air=1):</b>	<b>&gt; 5</b>
<b>Evaporation Rate (BUAC=1):</b>	<b>&lt; 1</b>
<b>Odor:</b>	<b>Mild Petroleum Odor</b>
<b>Appearance:</b>	<b>Green Color Liquid</b>
<b>Viscosity at 100°C CST:</b>	<b>9.1 (typical)</b>
<b>V.O.C.</b>	<b>38 - 78 g/L</b>
<b>Flash Point</b>	<b>240°F</b>
<b>Fire Point</b>	<b>265°F</b>

### Section 10 STABILITY AND REACTIVITY

**Stability:** Stable

**Incompatibility:** Avoid strong oxidants

**Polymerization:** Will not occur

**Thermal Decomposition:** Partial burning produces fumes, smoke and carbon monoxide.

### Section 11 TOXICOLOGY INFORMATION

Not established

### Section 12 ECOLOGICAL INFORMATION

Not established

### Section 13 DISPOSAL CONSIDERATIONS

**Waste Disposal:** Assure conformity with applicable disposal regulations.  
Dispose of absorbed material at approved waste site.

**Product Trade Name: ECHO 2-CYCLE ENGINE OIL 32:1**

**Section 14 TRANSPORTATION INFORMATION**

Note: Petroleum lubricating oils with a flashpoint above 200°F, are not regulated by D.O.T standards.

**Section 15 REGULATORY INFORMATION**

**Chronic Effects:** Ingredients of this product are not listed as potential carcinogens in N.T.P. Annual Report on Carcinogens, I.A.R.C. Monographs, or by O.S.H.A. HCS (g) (2) (vii).

**Section 16 OTHER INFORMATION**

Risk Phrases

<b>R37</b>	<b>Inhalation:</b>	Inhalation of fumes may result in dizziness, headache and respiratory irritation.
<b>R36</b>	<b>Eye Contact:</b>	Contact with eyes may cause minimal irritation.
<b>R38</b>	<b>Skin Contact:</b>	Mild irritation may occur with prolonged or repeated contact.
<b>R22</b>	<b>Ingestion:</b>	Slightly toxic. Pulmonary aspiration hazard if vomiting occurs.

*The data presented herein is based upon tests and information, which we believe to be reliable. However, users should make their own investigations to determine the suitability of the information for their particular purpose.*