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## MATERIAL SAFETY DATA SHEET

### EMERGENCY OVERVIEW

This slippery liquid has a mild odor. No significant immediate hazards for emergency response are known.

**NFPA RATING: HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0**

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**GENERIC NAME:** LUBRICATING OIL

**ISSUE DATE:** February 28, 2006

**THIS LUBRICANTS USA PRODUCT IS:**

**PAG HYDRAULIC FLUIDS**

**CAS NUMBER:**

Mixture

**SYNONYMS / GENERAL NAMES:**

Compressor oils

**24 HOUR EMERGENCY TELEPHONE:**

(CHEMTREC) 1-800-424-9300

**TECHNICAL INFORMATION:**

1-800-442-5823

### 2. COMPOSITION / INFORMATION ON INGREDIENTS / HAZARDOUS INGREDIENTS

COMPONENTS	CAS NO.	%	HAZARD DATA
Polyalkylene glycols	trade secret	97-99	na
Proprietary additives	proprietary	0-3	5 mg/m3 ACGIH

### 3. HAZARDOUS IDENTIFICATION

<b>ROUTES OF ENTRY:</b>	Inhalation or ingestion
<b>TARGET ORGANS:</b>	skin
<b>INHALATION:</b>	Low degree of toxicity by inhalation.
<b>INJECTION</b>	NA
<b>INGESTION</b>	No emergency care anticipated
<b>IRRITANCY:</b>	This product can cause mild, transient, eye irritation with short-term contact with liquids or sprays. Low degree of dermal toxicity.
<b>REPRODUCTIVE EFFECTS:</b>	N/A
<b>CANCER INFORMATION:</b>	NA

### 4. FIRST AID MEASURES

<b>EYES:</b>	Check for and remove contact lenses. Flush eyes with cool, clean, low-pressure water while occasionally lifting and lowering eyelids. Seek medical attention if excessive tearing, redness or pain persists.
<b>DERMAL:</b>	Remove contaminated shoes and clothing, wipe off excess material. Wash exposed skin with soap and water. Seek medical attention if tissue appears damaged or if irritation persists. Thoroughly clean contaminated clothing before reuse. Discard contaminated leather goods.
<b>INGESTION:</b>	First aid not normally required.
<b>INHALATION:</b>	Move victim to fresh air. Seek medical attention immediately.
<b>INJECTION:</b>	NA

**5. FIRE FIGHTING MEASURES**

**FLASH POINT, °C (°F):** >232°C (>450°F)  
**FLAMMABLE LIMITS (% BY VOLUME):** **LOWER:** NO DATA **UPPER:** NO DATA  
**EXTINGUISHING MEDIA:** Use dry chemical, foam, carbon dioxide or water fog.  
**SPECIAL FIRE FIGHTING PROCEDURES:** Use NIOSH/MSHA approved self-contained breathing apparatus when this material is involved in a fire. Water poured into hot burning pools may cause frothing and increase fire intensity.

**AUTOIGNITION TEMPERATURE:** N/A  
**EXPLOSION DATA:** N/A  
**NFPA RATING:** **HEALTH:**   1   **FLAMMABILITY:**   1   **REACTIVITY**   0  

**6. ACCIDENTAL RELEASE MEASURES**

**SPILL PROCEDURES:** Do not touch damaged containers or spilled material unless wearing appropriate protective equipment. Slipping hazard—do not walk through spilled material. Stop leak if you can do so without risk. For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal. Contain large spills to maximize product recovery or disposal. Prevent entry into waterways or sewers. In urban area, cleanup spills as soon as possible. In natural environments, seek cleanup advice from specialists to minimize physical habitat damage. This material will float on water. Absorbent pads and similar materials can be used. Comply with all laws and regulations.

**Ecotoxicity** Ecological effects testing has not been conducted on this material. Discharges are expected to cause only localized and non-persistent environmental damage.  
**Environmental fate** An environmental fate analysis has not been conducted on this specific product.

This product is soluble in water and the biological oxygen demand is estimated as:

BOD (% oxygen consumption): day 5--12%; day 10--15%; day 20—19%

This product contains phosphorus which can cause algae blooms.

Aquatic toxicity: fathead minnow: 96 hrs: LC 50 result value is 8100 mg/liter

**7. HANDLING AND STORAGE**

**HANDLING & STORAGE PROCEDURES:** Avoid water contamination and extreme temperatures to minimize product degradation. Keep container closed. Do not store with strong oxidizing agents. Do not store at temperatures above 120°F or in direct sunlight for extended periods of time.

Empty containers may contain product residues that can ignite with explosive force. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to flames, sparks, heat or other potential ignition sources. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>ENGINEERING CONTROLS:</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentration of mists and/or vapors below the recommended exposure limits. An eye wash station and safety shower should be located near the workstation.
<b>GLOVES PROTECTION:</b>	Use gloves constructed of chemical resistant materials such as neoprene or heavy nitrile rubber if frequent or prolonged contact is expected. Use heat protective gloves when handling product at elevated temperatures.
<b>EYE PROTECTION:</b>	Safety glasses equipped with side shields should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is likely, especially if material is heated above 125° F (or 51° C). Have suitable eye wash water available.

<b>RESPIRATORY PROTECTION:</b>	Vaporization or misting is not expected at ambient temperatures. Therefore, the need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).
<b>CLOTHING RECOMMENDATION:</b>	Avoid prolonged and/or repeated skin contact, especially after this product has been used. If splashing or spraying is expected chemical-resistant (Tyvek®, nitrile or neoprene) clothing should be worn. This might include long-sleeves, apron, slicker suit, boots and additional facial protection. If general contact occurs, promptly remove soaked clothing and take a shower.
<b>OTHER COMMENTS:</b>	Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities or leaving work. DO NOT use gasoline, kerosene, solvents or harsh abrasives as skin cleaners. Since standards/control limits have not been established for this product, the exposure limits shown below are suggested as minimum control guidelines.

#### Applicable Workplace Exposure levels

Chemical Component	ACGIH TLV TWA ppm (mg/ M <sup>3</sup> )	ACGIH TLV STEL ceiling ppm (mg/ M <sup>3</sup> )	ACGIH TLV Skin notation?	OSHA PEL TWA ppm (mg/ M <sup>3</sup> )	OSHA PEL STEL ceiling ppm (mg/ M <sup>3</sup> )	OSHA PEL Skin Notation?
Oil Mist	5	5	no	5	NE	No

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE:</b>	Colorless liquid
<b>ODOR:</b>	Mild odor
<b>pH:</b>	N/A
<b>VAPOR PRESSURE, mm Hg (25°C):</b>	<0.01
<b>VAPOR DENSITY:</b>	>10 (Air =1)
<b>MELTING POINT:</b>	Not available
<b>BOILING POINT, 760 mm Hg, °C:</b>	>600 F (316 C)...decomposes
<b>SOLUBILITY IN WATER:</b>	100% soluble in cold water.
<b>SPECIFIC GRAVITY:</b>	1.029 (Water = 1)
<b>EVAPORATION RATE:</b>	N/A
<b>VISCOSITY 40°C (100°C)</b>	32-68 cSt @ 40 C
<b>MOLECULAR WEIGHT:</b>	N/A
<b>PERCENT VOLATILE:</b>	Negligible volatility

### 10. STABILITY AND REACTIVITY

<b>STABILITY:</b>	Stable
<b>INCOMPATIBILITY:</b>	Strong oxidizers
<b>POLYMERIZATION:</b>	Not expected to occur
<b>THERMAL DECOMPOSITION:</b>	CO <sub>2</sub> , CO, smoke

### 11. TOXICOLOGICAL INFORMATION

<b>IRRITATION:</b>	EYES: This product can cause mild, transient, eye irritation with short-term contact with liquid or sprays. rabbit: 0.1 ml, transient iritis; minor conjunctival irritation, no corneal injury. SKIN: Rabbit, 4 h occluded. results no irritation.
<b>DERMAL IRRITATION:</b>	This material can cause mild, transient skin irritation with short-term exposure.
<b>INHALATION TOXICITY:</b>	No significant adverse health effects are expected to occur upon

	short-term exposure to this product. 4 hour exposure to respirable aerosol: rat +300 mg/m <sup>3</sup> , mortality 0/6, +390 mortality 3/6 and 470 mg/m <sup>3</sup> mortality 6/6.
<b>INGESTION IRRITATION:</b>	If swallowed, no significant adverse health effects are anticipated.
<b>INJECTION SENSITATION:</b>	NA Injection of any foreign fluid requires immediate medical attention.
<b>CHRONIC EXPOSURE SYMPTOMS</b>	NA
<b>OTHER REMARKS</b>	LD50 and LC 50 NOT AVAILABLE. Fluid contains one or more amines which may react with nitrites to form nitrosamines. Some nitrosamines have been shown to be carcinogenic in lab animals.

**12. HEALTH INFORMATION**

<b>HMIS CODE:</b>	<b>HEALTH:</b> 1	<b>FIRE:</b> 0	<b>REACTIVITY:</b> 0
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No	<b>HIGHLY TOXIC</b>	No	<b>SENSITIZER</b>
No	<b>TOXIC</b>	No	<b>REPRODUCTIVE EFFECTS</b>
No	<b>CORROSIVE</b>	No	<b>MUTAGEN</b>
No	<b>IRRITANT</b>		

**13. DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL:** This product does not meet the criteria of a hazardous waste as defined under 40 CFR 261 in that it does not exhibit the characteristics of hazardous waste under subpart C, nor is it listed as a hazardous waste under subpart D. As a non-hazardous liquid waste it should be disposed of according to Federal, State and Local regulations. Determine compliance status with all applicable requirements prior to disposal.

**14. TRANSPORT INFORMATION**

**DOT (DEPARTMENT OF TRANSPORTATION)**

<b>PROPER SHIPPING NAME:</b>	Synthetic lubricating fluid.
<b>HAZARD CLASS:</b>	Not a DOT controlled material (United States).
<b>HAZARD IDENTIFICATION NUMBER:</b>	N/A
<b>DOT PLACARD:</b>	N/A
<b>COMPATIBILITY CATEGORY:</b>	N/A

**15. REGULATORY INFORMATION**

**SARA (Superfund Amendments & Reauthorization Act) SECTION 313 - TOXIC CHEMICALS:**

This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substances) of any chemical substances listed under SARA Section 313.

**SARA SECTION 311 - HAZARD CATEGORIES:**

This product may meet one or more of the criteria for the hazard categories defined in 40 CFR Part 370 as established by Sections 311 and 312 of SARA as indicated below:

YES	<b>IMMEDIATE (ACUTE) HEALTH HAZARD</b>	NO	<b>SUDDEN RELEASE OF PRESSURE HAZARD</b>
YES	<b>DELAYED (CHRONIC) HEALTH HAZARD</b>	NO	<b>REACTIVE HAZARD</b>
NO	<b>FIRE HAZARD</b>		

**SARA SECTION 302 - EXTREMELY HAZARDOUS WASTE:**

This product is not known to contain any components in concentrations greater than one percent that are listed as Extremely Hazardous Substances in 40 CFR Part 355 pursuant to the requirements of Section 302(a) of SARA.

**CLEAN WATER ACT (CWA):**

Under the CWA, discharges of lubricants to surface water without proper Federal and State permits must be reported immediately to the National Response Center at (800) 424-8802.

**CERCLA HAZARDOUS SUBSTANCES:**

The following components of this product are specifically listed as hazardous substances in 40 CFR 302.4 and are present at levels which could require reporting:

<u>Component</u>	<u>CAS #</u>	<u>Amount (ppm)</u>
Trade secret component	Unavailable.....	3.0
Propylene oxide	75-56-9.....	0.5
Ethylene glycol	107-21-1.....	0.1
Ethylene oxide	75-21-8.....	0.1

**U.S. TSCA INVENTORY**

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

**CALIFORNIA PROPOSITION 65**

This product contains the following chemicals known to the State of California to cause cancer.

Propylene oxide.....CAS # 75-56-9.....amount <0.5 ppm

This product contains the following chemicals known to the State of California to cause cancer and birth defects or other reproductive harm:

Ethylene oxide.....CAS # 75-21-8.....amount <0.1 ppm

**CALIFORNIA SCAQMD Rule 443.1 (Labeling of materials containing organic solvents)**

VOC: Volatiles are substances with a vapor pressure of >0.5 mm Hg @ 104 C (219.2 F)

9 g/liter VOC                      9 g/liter of material less exempted

**NEW JERSEY RIGHT-TO-KNOW LABEL**

Lubricating fluid (polyalkylene glycol).

**PENNSYLVANIA RIGHT-TO-KNOW**

This product contains no known components which could require identification in the MSDS.

**MASSACHUSETTS (Hazardous Substances Disclosure by employers)**

The following components of this product appear on the Massachusetts substance list and are present at levels which should require identification on the MSDS:

<u>Component</u>	<u>CAS #</u>	<u>Amount (ppm)</u>
Trade secret component	Unavailable.....	3.0

Massachusetts Trade Secret Number Application being submitted.

**ADDITIONAL REGULATORY REMARKS**

None.

**16. OTHER INFORMATION**

The information in this Material Safety Data Sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. This information was prepared for the guidance of plant engineering, operations and management and for persons working with or handling this product. Lubricants USA believes this information to be reliable and up to date as of the date of publication, but makes no warranty that it is.

<b>NFPA HAZARD RATING</b>	least - 0	slight - 1	moderate - 2	high - 3	extreme - 4
<b>HMIS HEALTH RATING</b>	least - 0	slight - 1	moderate - 2	high - 3	extreme - 4

AP = approximately    EQ = equal    > = greater than    < = less than    NA = not applicable  
ND = no data    NE = not established

ACGIH = American Conference of Governmental Industrial Hygienists  
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act (1980)  
EPA = Environmental Protection Agency  
IARC = International Agency for Research on Cancer  
NIOSH = National Institute of Occupational Safety and Health  
NPCA = National Paint and Coating Manufacturers Association  
OSHA = Occupational Safety and Health Administration  
SARA = Superfund Amendments and Reauthorization Act (1986)

AIHA = American Industrial Hygiene Association  
HMIS = Hazardous Materials Information System  
NFPA = National Fire Protection Association  
NLGI = National Lubricating Grease Institute  
NTP = National Toxicology Program  
RQ = Reportable quantity  
TSCA = Toxic Substance Control Act