LUBRI-LOY®
PREMIUM LUBRICANTS & GREASES

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MATERIAL SAFETY DATA SHEET

TO

LUBRI-LOY PREMIUM TURBINE & CIRCULATION OILS

MINERAL · ISO 32, 46, 68, 100

LUBRI-LOY CATALOG #: TO-032-640, TO-032, TO-046-640, TO-046, TO-068-640, TO-068, TO-100-640, TO-100

DATE ISSUED: 1/20/10 **REPLACES ISSUE:** 8/01/07

I PRODUCT IDENTIFICATION AND EMERGENCY INFORMATION

Product Name	Lubri-Loy Premium Turbine & Circulation Oils; ISO 32, 46, 68, 100
Chemical Name	Lubricating Oils; Hydrocarbon
Lubri-Loy Catalog #'s	TO-032-640, TO-032, TO-046-640, TO-046, TO-068-640, TO-068, TO-100-640, TO-100
Date Issued	1/20/10
Replaces Issue	8/01/07
24-Hr. Emergency Phone	CHEMTREC (800) 424-9300

II COMPONENTS AND HAZARD INFORMATION

COMPONENT	CAS #'S	WT. %
Petroleum Lubricating Oil	64741884, 64742525, 647422536, 64742547, 64742581, 64742627, and 72623837	80 – 100
Zinc Compounds		0.4 – 2.0, 0.11 as Zinc

Hazardous Materials Identification System (HMIS):
NFPA Class:

Health	0
Flammability	1
Reactivity	0

May Generate Hydrogen Sulfide (CAS # 7783-06-4) OSHA, ACGIH PEL 10 ppm, Stel 15 ppm.

EXPOSURE LIMITS FOR MINERAL OIL MIST

TWA-OSHA	5mg/m^3
TWA-ACGIH	5mg/m^3
STEL-ACGIH	10mg/m^3

Appearance	Amber Liquid
Physical Form	Liquid
Odor	Petroleum Odor
Specific Gravity	0.86 – 0.90

Viscosity cSt @ 40°C	32 - 460
Flash Point	380ºF – 480ºF

III HEALTH AND HAZARD INFORMATION

POTENTIAL HEALTH HAZARDS

Eye	Contact may cause mild eye irritation including stinging, watering, and redness.
Skin	Contact may cause mild skin irritation including redness, and a burning sensation. Prolonged or repeated contact can worsen irritation by causing dryness and cracking of the skin leading to dermatitis (inflammation). No harmful effects from skin absorption are expected.
Inhalation (Breathing)	Not expected to be harmful if inhaled. High concentrations of vapor or mist may be irritating to the respiratory tract.
Ingestion (Swallowing)	Not expected to be harmful if swallowed.
Carcinogenicity	No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.
Pre-Existing Medical Conditions	Individuals with pre-existing skin or lung disorders may be more susceptible to the effects of exposure.

IV PRIMARY ROUTES OF ENTRY/EMERGENCY AND FIRST AID PROCEDURES

Eye	If irritation or redness develops, move victim away from exposure and into fresh air. Flush eye with clean water. If symptoms persist, seek medical attention.
Skin	Wipe material from skin and remove contaminated shoes and clothing. Clean affected area(s) thoroughly by washing with mild soap and water and, if necessary, a waterless skin cleanser. If irritation or redness develops and persists, seek medical attention.
Inhalation (Breathing)	If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.
Ingestion (Swallowing)	First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention. Do not induce vomiting.

V FIRE AND EXPLOSION HAZARD INFORMATION

FLAMMABILITY PROPERTIES

Flash Point/Method	> 380ºF / > 193ºC Min / Cleveland Open Cup
Auto ignition	Does not Occur
Extinguishing Media	Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.
Unusual Fire & Explosion Hazards	This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than air and can accumulate in low areas.
Fire Fighting Instructions	For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a selfcontained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant.

*Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if possible. Move undamaged containers from immediate hazard area if possible.

*Water spray may be useful in minimizing or dispensing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

VI ACCIDENTAL RELEASE MEASURES

This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release. Stay upwind and away from spill/release. Notify persons down wind of spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/ release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state and local agencies. Immediate cleanup is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center at 800-424-8802

VII HANDLING AND STORAGE

Do not enter confined spaces such as tanks or pits without the proper entry procedures. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see section 2 and 8). Do not wear contaminated clothing or shoes. Use good personal hygiene practices. "Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. High pressure injection of hydrocarbon fuels, hydraulic oils or greases under skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other complicated operations.

Keep container(s) tightly closed. Store only in approved containers. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Storage temperatures above 113°F may lead to thermal decomposition, resulting in the generation of hydrogen sulfide and other sulfur containing gases. Keep away from incompatible material (see section 10). Protect container(s) against physical damage.

VIII PROTECTION AND PRECAUTIONS PRECAUTIONS-

Engineering Controls	If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see section 2), additional engineering controls may be required.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Respiratory	A NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits (see Section 2). Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSIZ88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
Skin	The use of gloves impervious to the specific material handled is advised to prevent skin contact and possible irritation (see manufacturer's literature for information on permeability).
Eyes/Face	Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.
Other Protective Equipment	A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as necessary. Suggestions for the use of specific protective materials are based on readily available published data. User should check with specific manufacturers to confirm the performance of their products.

IX REACTIVITY

Stability	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to Avoid	Extended exposure to high temperatures can cause decomposition.

Materials to Avoid (Incompatible Materials)	Avoid contact with strong oxidizing agents, strong reducing agents.
Hazardous Decomposition Products	Combustion can yield carbon, nitrogen, sulfur, phosphorus, and zinc oxides. Hydrogen sulfide may also be released.
Hazardous Polymerization	Will not occur.

X TOXICOLOGICAL INFORMATION

CHRONIC DATA

LUBRICANT BASE OIL (PETROLEUM) – CAS: VARIOUS

Carcinogenicity	The petroleum base oils contained in this product have been highly refined by a variety of processes including solvent extraction, hydrotreating, and dewaxing to remove aromatics and improve performance characteristics. All of the oils meet the IP-346 criteria of less than 3% PAH's and therefore none are listed as a carcinogen by NTP, IARC, or OSHA.

ACUTE DATA

ADDITIVES – CAS: PROPRIETARY

Dermal LD50	No information available
LC50	No information available
Oral LD50	No information available

LUBRICANT BASE OIL (PETROLEUM) – CAS: VARIOUS

Dermal LD50	>2g/kg
LC50	No information available
Oral LD50	>5g/kg

XI ECOLOGICAL INFORMATION

Not evaluated at this time.

XII DISPOSAL CONSIDERATIONS

This material under most intended uses would become used oil due to contamination by physical or chemical impurities. RECYCLE ALL USED OIL. While being recycled, used oil is regulated by 40 CFR 279. Use resulting in chemical or physical change or contamination may also subject it to regulation as hazardous waste. Under federal regulations, used oil is a solid waste managed under 40 CFR 279. However, in California, used oil is managed as a hazardous waste until tested to show it is not hazardous. Consult state and local regulations regarding the proper handling of used oil. In the case of used oil, the intent to discard it may cause the used oil to be regulated as hazardous waste. Contents should be completely used and containers emptied prior to discarding. Rinse materials may be considered a RCRA hazardous waste and must be disposed of with care and in compliance with federal, state, and local regulations. Large empty containers, such as drums, should be returned to the distributor or a drum reconditioner. To assure proper disposal of small empty containers, consult with state and local regulations and disposal authorities.

XIII TRANSPORTATION INFORMATION

DOT Proper Shipping Description	Not Regulated

Note: Material is unregulated unless it contains 3500 gallons or more, the provisions of 49 CFR part 130 apply for land shipment.

XIV REGULATORY INFORMATION

US REGULATIONS

EPA SARA 311/312 (TITLE III HAZARD CATEGORIES)

Acute Health	No
Chronic Health	No

Fire Hazard	No
Pressure Hazard	No
Reactive Hazard	No

SARA – SECTION 313 AND 40 CFR 372:

This material contains the following chemicals subject to reporting requirements of SARA 131 and 40 CFR 372:

EPA (CERCLA) REPORTABLE QUANTITY (IN POUNDS):

—No Known—

CERCLA/SARA – SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES AND TPQ'S (IN POUNDS):

This material contains the following chemicals subject to the reporting requirements ofSARA 302 and 40 CFR 372:

—No Known—

CALIFORNIA PROPOSITION 65:

Warning: This material contains the following chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Used engine oils, while not a component of this material, are on the Proposition 65 list of chemicals known to the state of California to cause cancer.

CARCINOGEN IDENTIFICATION:

This material has not been identified as a carcinogen by NTP, IARC, or OSHA. See Section 11 for carcinogenicity information of individual components, if any. Used motor oil has been identified as a possible skin carcinogen by IARC.

TSCA	All components are listed on the TSCA inventory.

XV OTHER INFORMATION

The information and recommendations herein are, to the best of our knowledge and belief, accurate and reliable as of the date issued. APR does not warrant or guarantee their accuracy or reliability, and shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety, environmental, and other necessary information is included on the container.