

MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER: KVAL INC.
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PETALUMA, CA 94952

PHONE NUMBERS:
800-553-5825
707-762-4363
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PRODUCT NAMES: Dura-Lith® EP NLGI 2 Grease; Moly MAX Grease EP NLGI 2
PRODUCT USES: Multipurpose extreme pressure grease used in Gear Boxes, Ball Screws, Linear and Flange Bearings.

PRODUCT NUMBER(S): LUBE EP; CPS226446

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0 % Moly MAX Grease EP NLGI 2

CONTAINING COMPONENTS AMOUNT LIMIT/QTY AGENCY/TYPE

LUBRICATING BASE OIL CONTAINING ONE OR MORE OF THE FOLLOWING
> 60.00%

HYDROTREATED DIST., HVY NAPHTH
Chemical Name: DISTILLATES, HYDROTREATED HEAVY NAPHTHENIC
CAS64742525 5 mg/m3 (mist) ACGIH TWA
10 mg/m3 (mist) ACGIH STEL
5 mg/m3 (mist) OSHA PEL

HYDROTREATED BOTTOMS
Chemical Name: RESIDUAL OILS HYDROTREATED
CAS64742570 5 mg/m3 (mist) ACGIH TWA
10 mg/m3 (mist) ACGIH STEL
5 mg/m3 (mist) OSHA PEL

SOLVENT DEWAXED RESIDUAL OIL
Chemical Name: RESIDUAL OILS SOLVENT DEWAXED
CAS64742627 5 mg/m3 (mist) ACGIH TWA
10 mg/m3 (mist) ACGIH STEL
5 mg/m3 (mist) OSHA PEL

DEASPHALTED RESIDUUM
Chemical Name: DEASPHALTED RESIDUUM
CAS64741953 NONE NA

ADDITIVES INCLUDING THE FOLLOWING
< 40.00%

LITHIUM BASE THICKENERS

MOLYBDENUM DISULFIDE
Chemical Name: MOLYBDENUM DISULFIDE
CAS1317335 5.00% 10 mg/m3 ACGIH TWA

ZINC COMPOUNDS

< 1.50%

ANTIMONY COMPOUND

< 1.00% 0.5 mg/m3 ACGIH TWA

COMPOSITION COMMENT:

All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m3, the OSHA PEL is 5 mg/m3.

SECTION 3. HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS

EYE: Not expected to cause prolonged or significant eye irritation.

SKIN: Contact with the skin is not expected to cause prolonged or significant irritation. Repeated contact with the skin may cause irritation. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

INGESTION: Not expected to be harmful if swallowed.

INHALATION: Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit.

SECTION 4. FIRST AID MEASURES

EYE: No specific first aid measures are required because this material is not expected to cause eye irritation. As a precaution remove contact lenses, if worn, and flush eyes with water.

SKIN: Remove contaminated clothing and shoes. Use a waterless hand cleaner, mineral oil, or petroleum jelly to remove the material. Then wash skin with soap and water. Wash or clean contaminated clothing and shoes before reuse.

INGESTION: No specific first aid measures are required because this material is not expected to be harmful if swallowed. Do not induce vomiting. As a

precaution, give the person a glass of water or milk to drink and get medical advice. Never give anything by mouth to an unconscious person.

INHALATION: If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

NOTE TO PHYSICIANS: In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

SECTION 5. FIRE FIGHTING MEASURES

FIRE CLASSIFICATION: Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

FLAMMABLE PROPERTIES: FLASH POINT: >302F (>150C)

AUTOIGNITION: NDA

FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA: CO2, Dry Chemical, Foam, Water Fog

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0.

FIRE FIGHTING INSTRUCTIONS: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen and phosphorus. Normal combustion forms oxides of zinc and antimony. Incomplete combustion can produce carbon monoxide.

SECTION 6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section.

SECTION 7. HANDLING AND STORAGE

Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. 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 re-conditioner, or properly disposed of. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water. Avoid repeated skin contact. Wash thoroughly after handling.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS: Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS: Use in a well-ventilated area. If user operations generate an oil mist, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended mineral oil mist exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: No special eye protection is normally required.

SKIN PROTECTION: Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing including gloves.

RESPIRATORY PROTECTION: No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the recommended mineral oil mist exposure limits. If not wear a NIOSH approved respirator that provides adequate protection from measured concentrations of this material. Use the following elements for air-purifying respirators: particulate.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Gray-colored grease.

pH: NA

VAPOR PRESSURE: <0.01 mm Hg @ 100F

VAPOR DENSITY (AIR=1): Heavier than air

BOILING POINT: >600F (>315C)

MELTING POINT: 280C (Dropping Point)

SOLUBILITY: Soluble in hydrocarbon solvents; insoluble in water.

SPECIFIC GRAVITY: NDA

DENSITY: NDA

VISCOSITY: 18.1 cSt @ 100C Extracted Oil

SECTION 10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

CHEMICAL STABILITY: Stable.

CONDITIONS TO AVOID: No data available.

INCOMPATIBILITY WITH OTHER MATERIALS: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

HAZARDOUS POLYMERIZATION: Polymerization will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: The eye irritation hazard is based on data for a similar material.

SKIN EFFECTS: The skin irritation hazard is based on data for a similar material.

ACUTE ORAL EFFECTS: The acute oral toxicity is based on data for a similar material.

ACUTE INHALATION EFFECTS: The acute respiratory toxicity is based on data for a similar material.

ADDITIONAL TOXICOLOGY INFORMATION: This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY: The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

ENVIRONMENTAL FATE: This material is not expected to be readily biodegradable.

SECTION 13. DISPOSAL CONSIDERATIONS

Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

SECTION 14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING NAME: NONE

DOT HAZARD CLASS: NONE

DOT IDENTIFICATION NUMBER: NONE

DOT PACKING GROUP: N/A

ADDITIONAL INFO: Petroleum Lubricating Grease - Not hazardous by US DOT.

ADR/RID Hazard Class - Not applicable

SECTION 15. REGULATORY INFORMATION

SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects: NO
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

REGULATORY LISTS SEARCHED:

01=SARA 313 11=NJ RTK 22=TSCA Sect 5(a)(2)
02=MASS RTK 12=CERCLA 302.4 23=TSCA Sect 6
03=NTP Carcinogen 13=MN RTK 24=TSCA Sect 12(b)
04=CA Prop 65-Carcin 14=ACGIH TWA 25=TSCA Sect 8(a)
05=CA Prop 65-Repro Tox 15=ACGIH STEL 26=TSCA Sect 8(d)
06=IARC Group 1 16=ACGIH Calc TLV 27=TSCA Sect 4(a)
07=IARC Group 2A 17=OSHA PEL 28=Canadian WHMIS
08=IARC Group 2B 18=DOT Marine Pollutant 29=OSHA CEILING
09=SARA 302/304 19=Chevron TWA 30=Chevron STEL
10=PA RTK 20=EPA Carcinogen

The following components of this material are found on the regulatory lists indicated.

MOLYBDENUM DISULFIDE is found on lists: 02,11,14,

DISTILLATES, HYDROTREATED HEAVY NAPHTHENIC is found on lists: 14,15,17,

RESIDUAL OILS HYDROTREATED is found on lists: 14,15,17,

RESIDUAL OILS SOLVENT DEWAXED is found on lists: 14,15,17,

ZINC COMPOUNDS is found on lists: 01,10,11,

ANTIMONY COMPOUND is found on lists: 01,11,14,28,

EU RISK AND SAFETY LABEL PHRASES: S37: Wear suitable gloves.

NEW JERSEY RTK CLASSIFICATION: Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: Petroleum Oil (Grease)

WHMIS CLASSIFICATION: This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

SECTION 16. OTHER INFORMATION

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0;

HMIS RATINGS: Health 1; Flammability 1; Reactivity 0;
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value TWA - Time Weighted Average
STEL - Short-term Exposure Limit TPQ - Threshold Planning Quantity
RQ - Reportable Quantity PEL - Permissible Exposure Limit
C - Ceiling Limit CAS - Chemical Abstract Service Number
A1-5 - Appendix A Categories () - Change Has Been Proposed
NDA - No Data Available NA - Not Applicable

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