

MATERIAL SAFETY DATA SHEET

1. Chemical and Company Identification

Product Name: **Enduralube**
MSDS Effective Date: June 18, 2010
Supplier: Compressed Air Consultants
417 East Blvd, Suite 204
Charlotte, NC 28203

Emergency PhoneNumber: 704-376-2600
Customer Information: 704-376-2600

2. Composition/Information on Ingredients

An advanced blend of Polyoxyalkylene glycol and Pentaerythritolester Lubricant basestocks with proprietary additives.

3. Hazards Identification

Properties potentially affecting health: No chronic exposure risks have been associated with this product as it is normally used in industrial applications, with the exception of mist inhalation effects common to all lubricants. (See also section 11 for additional data)

Acute Effects:

Skin: Wash with soap and water after handling. Prolonged contact may cause slight skin irritation with localized redness. Avoid thermal burns handling product when hot.

Eye: Avoid contact with eyes. Contact will result in temporary irritation and blurred vision.

Ingestion: Oral toxicity is low. Ingestion of substantial amounts of product may result in gastrointestinal effects such as nausea, diarrhea and vomiting.

Inhalation: Inhalation of vapor from handling liquid product is not expected to result in irritation. Use of any lubricant in a compressor used for breathing air must be accompanied by an air purification packaged designed and properly maintained to remove lubricant vapor from the air. Prolonged ingestion of air from lubricated compressors without this package may result in pulmonary edema due to irritation or inflammation of bronchial passages.

4. First Aid Protocol

Skin: Wash with soap and warm water after exposure. Wash contaminated clothing before reuse. If exposed to hot fluid, treatment as appropriate for any thermal burn after washing.

Eye: Flush affected eye with clean water for 15 minutes. Remove and dispose of contact lenses. If irritation persists, consult a physician.

Ingestion: If swallowed, seek medical attention, but do not induce vomiting unless so directed by medical personnel.

Inhalation: Consult a physician for supportive care if prolonged vapor exposure due to use in breathing air applications (which is contrary to the intended use of the product) results in pulmonary irritation or inflammation.

5. Fire Fighting Measures

Suitable Extinguishing Media: Carbon dioxide (CO₂), Dry chemical, Water spray mist, or foam. Preferred foams include alcohol resistant types. Do not use direct water stream, as it may spread fire.

Other Flammability information:

Spills of liquids onto hot insulation may result in lowering the autoignition temperature of the product, possibly resulting in spontaneous combustion.

Flammability Properties: Flash Point (COC) 536° F (280°C)

Flammability limits in air: Not applicable. Product volatility is very low, and will not generate significant vapor under normal ambient conditions.

6. Accidental release measures

Personal Protection: Slipping Hazard: Avoid falls on slippery surfaces in the event of a spill. Rubber gloves are recommended. Clothing should be thoroughly cleaned before reuse.

Environmental Protection: Contain spill with clay chips, sorbent bags, or other absorbent material to avoid contamination of soil and water. Store fluid soaked sorbent in sealed steel drums, away from structures. Sorbent or rags soaked with any lubricant is a spontaneous combustion hazard. Dispose of drums of used sorbent in compliance with all federal, state, and local regulations.

Reporting: Spills of lubricants (even low-toxicity biodegradable ones) are governed under the OSPRA (Oil Spill Prevention & Recovery Act). Consult with the lawyers on requirements under this act.

7. Handling and Storage

Handling: Clean up any spilled material as it creates a slipping/fall hazard. Wash skin with soap and water following any incidental contact.

Storage: Keep containers closed when not in use to avoid contamination of product. Drums stored outside should have a plastic cap over the top to avoid water standing on top and entering via the bung or vent. Unopened product shelf life 10 years. Material stored beyond this time should be tested before use. Shelf life of plastic pails is limited by storage conditions. Pails which are exposed to sunlight or UV light for several years may become brittle and subject to breakage.

8. Exposure Controls/Personal Protection

Exposure Limits: None established

Engineering Controls: With any lubricated compressor, good plant ventilation is recommended when a large volume of compressed air is discharged into an occupied, confined area.

Personal Protective Equipment:

Respiratory Protection: No protection required when handling liquid in normal industrial contact.

Eye/Face Protection: Safety Glasses recommended.

Skin Protection: Insulated rubber gloves recommended when handling hot material to avoid thermal burns.

Hygiene Measures: Avoid contact with eyes and skin. Wash after exposure with soap and water.

9. Physical & Chemical Properties

Physical Appearance: Clear, light amber, viscous liquid

Color: Amber when new, used fluid darkens to brown

Odor: Mild, sweet odor when initially heated. Very low odor after initial use.

Vapor Pressure/Evaporation rate: Virtually 0 mmHg @ 20°C, about 1 PPM (0.0008 mmHg) equilibrium vapor pressure in air at 100C.

Flash Point: 280°C (536 °F) ASTM D92

Liquid Density: 0.98 g/cm³ @ 25 °C ASTM D941

Vapor Density: Not applicable, nearly non-volatile.

This information is accurate to the best of our knowledge, information, and belief. It is given only as a guidance for safe handling, use, disposal, transportation, and storage and is not to be considered a warranty. This MSDS is valid only for the named product, and may not be valid if product is used with other products or materials, or in ways other than intended by the product literature.

Boiling Point: Not applicable.

Freezing Point: Pour Point <-40°C

Solubility in water: approximately 0.7% solubility in water at 60°C , floats on top of water.

10. Stability and Reactivity

CHEMICAL STABILITY: Stable under storage and typical use conditions.

POLYMERIZATION: Hazardous autopolymerization will not occur.

CONDITIONS TO AVOID: For air or nitrogen compression only. Do not compress pure or concentrated oxygen (>25%), or any chlorine or other strong oxidizing gases. Product can decompose at elevated temperatures, especially in excess of 350°F.

INCOMPATIBILITY WITH OTHER MATERIALS: Avoid contact with strong acids, chlorine, peroxides, and other strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Under fire conditions, hazardous decomposition products include carbon monoxide. Other constituents of the smoke formed when product is burned have not been characterized, and will vary with the conditions of the fire.

11. Toxicological Information

Acute Toxicity:

Ingestion: Based on data from the components of the blended product, acute oral toxicity expected to be very low.

Skin: This product is not readily absorbed through skin. Transdermal toxicity low.

12. Ecological Information

Movement & Partitioning: No information available.

Biodegradability: The basestock of this product is a blend of biodegradable basestocks.

Ecotoxicity effects: None available.

Aquatic toxicity: None available.

13. Disposal Considerations

Empty containers residues / unused products: This product may be recycled/reclaimed along with other waste lubricants/crankcase oils. Drain as much product as possible from empty containers before recycling, recovery or waste disposal.

Used fluid disposal: Unless contaminated with other substances, this product meets the requirements for reclamation/recycling as EPA "specification waste oil". It contains no Barium additives nor any heavy metals or halogens which are restricted by these regulations.

Compressor condensate disposal: Total Oil & Grease (TOG) limits into municipal sanitary sewer systems vary by locality. Many municipalities allow up to 100 ppm TOG in the total outflow from the plant. Because regulations vary, check local limits. Disposal of compressor condensate from any lubricated compressor onto the ground or into bodies of water is not permitted.

THE INFORMATION IN THIS SECTION IS RELEVANT ONLY TO THE PRODUCT AS SHIPPED AND DESCRIBED SECTION 2 OF THE MSDS.

14. Transport Information

DOT: Not regulated when shipped within the US by land, in bulk or non-bulk containers.

TDG (Canada): Not regulated

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IMDG: Not regulated

ICAO/IATA: Not regulated

15. Regulatory Information

TSCA: All components are TSCA inventory listed, or are exempt from listing requirements.

CEPA (Canadian DSL): All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

SARA 311 & 312: Not characterized as "hazardous" under these regulations.

SARA 313: Not known to contain any chemical subject to notification requirements.

United States EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III - Extremely Hazardous Substance - Section 302 (40 CFR 355, Appendix A):

Not known to contain any chemical subject to notification requirements.

California Proposition 65: Not known to contain any substances listed under Proposition 65, known to the State of California to cause cancer, birth defects or other reproductive harm, in concentrations which would require a warning under the statute.

Pennsylvania Worker and Community Right-To-Know Act: Pennsylvania Hazardous Substances List: Not known to contain any substances listed under this statute which would require reporting.

16. Other Information

HMIS: Health: 1 Flammability: 1 Physical Hazard: 0

NFPA: Health: 1 Flammability: 1 Reactivity: 0



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