



**No Hazardous Substance(s) or Complex Substance(s) required for disclosure.** As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

**SECTION 4 - FIRST AID MEASURES**

- Eye contact:** Flush eye with water for 15 minutes. If symptoms persist, call a physician.
- Skin contact:** Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.
- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms persist, call a physician.
- Ingestion:** Do not induce vomiting. If conscious, drink plenty of water. Obtain medical attention.

Material Name: Bio-Penetrating Lubricant (BPL) Page 2 of 6  
Issue Date: 15 May 2015

**Precautions for safe handling**

**Handling:** Handle in accordance with good industrial hygiene and safety practice. Keep containers closed when not in use. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions:** Keep containers tightly closed and store in a cool well-ventilated place free of contaminants. Empty containers may retain product properties. Follow all MSDS / Label warnings after container is emptied. No special storage precautions required.

<b>SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
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**Control parameters****Exposure Guidelines**

Components	ACGIH TLV	OSHA (TWA mg/m 3 ):	IDLH
Oil Mist	5 mg/m 3	5 mg/m 3	

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Use only in area provided with appropriate exhaust ventilation.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection:** No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment.

**Hand protection:** Nitrile rubber Neoprene gloves

**Eye protection:** Safety glasses

**Skin and body protection:** Impervious clothing

**General Hygiene Considerations:** Avoid contact with skin, eyes and clothing

<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Typical information on basic physical and chemical properties**

<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	.88 @ 15.6°C
<b>Flash Point (PMCC):</b>	146°C (295°F)
<b>Kinematic viscosity:</b>	13 cSt @ 40°C
<b>Pour Point:</b>	-30°C (-22°F)
<b>Explosive properties:</b>	Material does not have explosive properties.
<b>Oxidizing properties:</b>	See Section 2, No significant hazards.
<b>Volatile Organic Compound (VOC):</b>	Components contain No VOC according to CARB
<b>Physical state</b>	Liquid
<b>Appearance</b>	Oil
<b>Odor</b>	Mild
<b>Color</b>	Light yellow liquid
<b>Odor threshold</b>	Not Determined
<b>Melting: point/freezing point:</b>	Not Determined
<b>Boiling point /boiling range:</b>	Not Determined
<b>Flammability (solid, gas):</b>	Not Determined
<b>Flammability Limit in Air</b>	Not Determined
<b>Evaporation rate: (n-Butyl Acetate=1)</b>	Approx. <1
<b>Percent Volatile:</b>	Not Determined
<b>Boiling Point:</b>	Not Determined
<b>Vapor Density (Air = 1):</b>	<1
<b>Vapor pressure:</b>	Not Determined
<b>Solubility in Water:</b>	Insoluble
<b>Upper flammability limit:</b>	Not Determined
<b>Lower flammability limit:</b>	Not Determined
<b>Partition coefficient:</b>	Not Determined
<b>Autoignition temperature:</b>	Not Determined
<b>Decomposition temperature:</b>	Not Determined

**Other information**

*The above data are typical values and do not constitute a specification.*

<b>SECTION 10 - STABILITY AND REACTIVITY</b>
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**Reactivity** Not applicable

**Chemical stability**

**Stability:** Stable under normal conditions

**Possibility of Hazardous Reactions**

**Possibility of Hazardous Reactions:** None under normal processing  
**Hazardous polymerization:** Hazardous polymerization does not occur

**Conditions to avoid**

**Conditions to avoid:** No special storage conditions required

**Hazardous Decomposition Products**

**Hazardous Decomposition Products:** None under normal processing

**Incompatible materials**

**Incompatible materials:** Oxidizing agents

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

<b>Product Information</b>	Product does not present an acute toxicity hazard based on known or supplied information
<b>Eye contact</b>	Contact with eyes may cause irritation. May cause mild, short-lasting discomfort to eyes based on assessment of the components.
<b>Skin contact</b>	Acute Toxicity: Minimally Toxic, based on assessment of the components. Substance does not generally irritate and is only mildly irritating to the skin with prolonged exposure.
<b>Inhalation</b>	Acute Toxicity: Minimally Toxic, based on assessment of the components. Irritation: Negligible hazard at ambient/normal handling temperatures.
<b>Ingestion</b>	Acute Toxicity: Minimally Toxic, based on assessment of the components and structurally similar materials.
<b>Aspiration</b>	Not expected to be an aspiration hazard, based on physical and chemical properties of the material.
<b>Respiratory Sensitization</b>	Not expected to be a respiratory sensitizer, based on assessment of the components and structurally similar materials.
<b>Germ Cell Mutagenicity</b>	Not expected to be a germ cell mutagen, based on assessment of the components and structurally similar materials.
<b>Carcinogenicity</b>	Not expected to cause cancer, based on assessment of the components and structurally similar materials. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>Reproductive Toxicity</b>	Not expected to be a reproductive toxicant, based on assessment of the components.
<b>Lactation</b>	Not expected to cause harm to breast-fed children.
<b>Specific Target Organ Toxicity (STOT)</b>	Single Exposure: Not expected to cause organ damage from a single exposure. Repeated Exposure: Not expected to cause organ damage from prolonged or repeated exposure.

**OTHER INFORMATION**

**Product Information:** Product does not present an acute toxicity hazard based on known or supplied information. Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals and humans.

**SECTION 12 - ECOLOGICAL INFORMATION**

**Ecotoxicity:** No known hazards to the aquatic r pot

**Aquatic/Ecotoxicity:** Based on previous studies, (OECD 201, 202, and 203) LC50/EC50 >3,000 ppm (3000 mg/L).

**Bioaccumulation:** No Potential to Bioconcentrate

**Soil Mobility:** Not Established

**Persistence and degradability:** Readily biodegradable >60% % after 28 days

**Water Mobility:** The product is insoluble and floats on water. **WGK:** 1

**SECTION 13 - DISPOSAL INFORMATION**

**Waste treatment methods**

**Disposal of wastes:** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging:** Do not reuse container.

**SECTION 14 - TRANSPORTATION INFORMATION ,**

<b>UN number</b>	<b>ADR/RID</b> Not regulated.
<b>ICAO</b> Not regulated.	<b>IMDG</b> Not regulated.
<b>UN proper shipping name</b>	<b>ADR/RID</b> Not regulated.
<b>ICAO</b> Not regulated.	<b>IMDG</b> Not regulated. Marine Pollutant: NO
<b>Transport hazard class(es)</b>	<b>ADR/RID</b> Not regulated.

