Material Safety Data Sheet

Product name: **MICROLUBE GB 0 (# 020232)**

Date: March 12, 2003  
Replaces: July 2002  
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**Section 1 - Product and Company Identification**

Company: Klüber Lubrication North America L.P.  
32 Industrial Dr.  
Londonderry, N.H. 03053  
Phone: (603) 647-4104  
Fax: (603) 647-4105

Product Use: Lubricating Grease

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**Section 2 - Composition/Information on Ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>5 mg/m(^3) (mist)</td>
<td>5 mg/m(^3) (mist)</td>
</tr>
<tr>
<td>Zinc compound</td>
<td>N/Ap</td>
<td>N/Ap</td>
</tr>
<tr>
<td>Silica</td>
<td>3 mg/m(^3) (PNOC)</td>
<td>5 mg/m(^3)</td>
</tr>
</tbody>
</table>

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**Section 3 - Hazards Identification**

**Eye Contact:** May cause mild irritation upon immediate contact.

**Skin contact:** Prolonged or repeated contact may cause the removal of skin oils, possibly leading to irritation or dermatitis.

**Inhalation:** Vapor inhalation under ambient conditions will not occur. Vapor pressure is very low. The inhalation of vapors (generated at extremely high temperature only) or oil mist may cause a mild irritation of the mucous membranes of the upper respiratory tract. Harmful concentrations of mists and/or vapors are unlikely to occur through reasonable and customary use of this product.

**Ingestion:** No acute or chronic effects expected. However, minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury.

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**Section 4 - Emergency and First Aid Procedures**

**After contact with eyes:** Flush eyes with plenty of water for 15 minutes. If irritation persists, or if an infection develops, seek medical attention.

**After contact with skin:** Wash off with soap and plenty of water. Apply skin cream if necessary. Seek medical attention if irritation or infection occurs. Remove contaminated clothing and wash before reuse.

**After inhalation:** If overcome by product vapor heated to extreme temperatures, immediately move from exposure and get medical attention. If breathing is irregular, start resuscitation or administer oxygen if available. If overexposed to oil mist, remove from further exposure until excessive oil mist condition subsides.

**After ingestion:** If large amounts are swallowed, do not induce vomiting. Get medical attention.

**Advice to doctor:** Treat symptomatically.

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**Section 5 - Exposure Controls**

**Eye protection:** Wear safety goggles if splashes may occur. Do not wear contact lenses when using chemicals.

**Hand protection:** Wear chemical resistant gloves.

**Body protection:** Wear clean, body-covering clothing to minimize dermal exposure.

**Ventilation:** Under normal conditions of use, no special ventilation is required. However, if vaporized or misted and limits in Section 2 are exceeded, use local exhaust.

**Respiratory protection:** No special respiratory protection is required. However, if product is overheated beyond conditions of normal use, or misted, and the limits in Section 2 are exceeded, wear the appropriate NIOSH-approved respiratory protection.

**Other protection measures:** Safety showers, eye wash fountains, and washing facilities should be readily available.

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The information herein is given in good faith, but without warranty, express or implied. All risks of use of the product are therefore assumed by the user. Appropriate warnings and safe handling procedures must be provided to handlers and users.
Section 6 - Fire Fighting Measures

Flash point: N/A
Lower explosion limit: N/A
Upper explosion limit: N/A
Extinguishing media: Water spray, foam, dry powder, carbon dioxide (CO₂)

Unusual fire and explosion hazards: Empty metal containers retain product residue. Do not pressurize, cut, weld, drill, solder or expose container to heat, flame, sparks, or other sources of ignition: it may explode, causing serious injury or death. Exposure to heat builds up pressure in container. Cool with water spray.

Special fire Fighting Procedures: If leak or spill has not ignited, use water spray to disperse any vapor and to flush spills away from ignition sources. Use self-contained breathing apparatus for enclosed or confined spaces or as otherwise needed. Do not use direct stream of water, material may float and re-ignite.

Section 7 - Accidental Release Measures

If product leaks or is inadvertently spilled, eliminate ignition sources isolate surrounding spill area with the proper containment system to prevent the spill from reaching waterways. Add absorbent and soak up the product. Collect product and absorbent, place in a chemical waste container for proper disposal.

Section 8 - Handling and Storage

Avoid contact with skin and remove soiled or soaked clothing. Wash hands with soap and water before eating, drinking, and/or smoking. Clean skin thoroughly after work and if necessary, apply skin cream. Store product under normal temperature and pressure. Store product away from heat sources and food products.

Section 9 - Physical and Chemical Properties

Boiling Point: N/A
Pour Point: N/A
Vapor Pressure (mm Hg.): N/A
Density: N/A
Solubility in Water: Insoluble
Specific Gravity (H₂O = 1): 0.90
Evaporation rate (ether = 1): N/A
Appearance and odor: Red-brown grease with a neutral odor.

Section 10 - Stability and Reactivity

Stability: Stable
Conditions to avoid: Open flames and other sources of heat
Materials to avoid: Strong oxidizing agents such as pure oxygen
Hazardous decomposition products: Fumes, smoke, carbon monoxide and carbon dioxide.
Hazardous polymerization: Will not occur

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Section 11 - Toxicological Information

Acute toxicity: N/Av for this product.
Chronic toxicity: N/Av for this product.

Section 12- Disposal Considerations

Under RCRA, it is the user’s responsibility to determine, at the time of disposal, whether the product meets any of the criteria for a hazardous waste defined in 40 CFR 261. As a new product it would not be considered RCRA hazardous waste.

Section 13- Transportation Information

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Hazard Class or Division</th>
<th>UN ID</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/Ap</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 14 – Regulatory Information

All product components comply with all applicable rules and orders under the Toxic Substance Control Act (TSCA).

- The Zinc Compound in this product is regulated by the CWA 304 – Water Quality Criteria, is a CWA 307 – Priority Pollutant, is a CERCLA Hazardous Substance, is a SARA Title III Section 313 chemical, is a DOT/RSPA substance, is on the California, Connecticut, Illinois, Massachusetts and New Jersey chemical inventory lists and is on the Canadian NPRI.

- The Silica in this product is a NIOSH group 2 pesticide, is an IARC group 3 Carcinogen – Evidence of carcinogenicity in humans is inadequate, is on the WHMIS Ingredient Disclosure List, and is on the California, Illinois, Massachusetts, New Jersey, Kentucky, Pennsylvania, North Carolina, Minnesota and North Carolina chemical inventory lists.

Section 15 - Additional Information

HMIS Rating: Health -1   Flammability - 1   Reactivity - 0   Personal Protection - B

Unk. = Unknown   N/Ap = Not Applicable   N/Av = Not Available   ~ = Approximately

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