**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Name: Anti-Seize Lubricant  
Item No.: 80209  
Product Type: Lubricant

**2. COMPOSITION, INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>64742-52-5</td>
<td>40-50</td>
</tr>
<tr>
<td>COPPER*</td>
<td>7440-50-8</td>
<td>10-15</td>
</tr>
<tr>
<td>GAS OIL</td>
<td>64741-44-2</td>
<td>5-15</td>
</tr>
<tr>
<td>ALUMINUM</td>
<td>7429-90-5</td>
<td>55-60</td>
</tr>
<tr>
<td>Mineral oil, petroleum distillates</td>
<td>64742-53-6</td>
<td>6-20</td>
</tr>
<tr>
<td>Graphite</td>
<td>7782-42-5</td>
<td>1-3</td>
</tr>
<tr>
<td>Lithium soap</td>
<td>7620-77-1</td>
<td>1</td>
</tr>
<tr>
<td>SILICA, AMORPHOUS, precipitated</td>
<td>112926-00-8</td>
<td>1-3</td>
</tr>
</tbody>
</table>

* This component is listed as a SARA Section 313 Toxic Chemical.

Ingredients which have exposure limits:

**Exposure Limits (TWA)**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>ACGIH (TWA)</th>
<th>OSHA (PEL)</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>5 mg/m3 mist</td>
<td>5 mg/m3 mist</td>
<td>5 mg/m3 mist</td>
</tr>
<tr>
<td>COPPER</td>
<td>1 mg/m3 dust</td>
<td>1 mg/m3 dust</td>
<td>None</td>
</tr>
<tr>
<td>GAS OIL</td>
<td>5 mg/m3 TWA mist</td>
<td>5 mg/m3 TWA mist</td>
<td>None</td>
</tr>
<tr>
<td>ALUMINUM</td>
<td>10 mg/m3 dust</td>
<td>15 mg/m3 dust</td>
<td>None</td>
</tr>
<tr>
<td>Mineral oil, petroleum distillates</td>
<td>1 mg/m3 mist</td>
<td>5 mg/m3 mist</td>
<td>None</td>
</tr>
<tr>
<td>Graphite</td>
<td>2.5 mg/m3 dust, 2.5 mg/m3 dust,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SILICA, AMORPHOUS, precipitated</td>
<td>10 mg/m3 TWA</td>
<td>6 mg/m3 TWA</td>
<td>None</td>
</tr>
</tbody>
</table>

**Exposure Limits (STEL)**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>ACGIH (STEL)</th>
<th>OSHA (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>10 mg/m3 mist</td>
<td>None</td>
</tr>
<tr>
<td>GAS OIL</td>
<td>10 mg/m3 mist</td>
<td>None</td>
</tr>
<tr>
<td>Mineral oil, petroleum distillates</td>
<td>10 mg/m3 mist</td>
<td>None</td>
</tr>
</tbody>
</table>
PERMATEX INDUSTRIAL CORPORATION
ROCKY HILL, CONNECTICUT 06067
TELEPHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET

Product Name: Anti-Seize Lubricant
Item No.: 80209

3. HAZARDS IDENTIFICATION

Toxicity:
May irritate eyes or skin. Vapors or direct contact may irritate or burn nose and throat. Swallowing may irritate digestive tract and cause nervous system depression. Prolonged skin contact with copper may cause sensitization dermatitis. Copper dusts and mists are eye and mucous membrane irritants and skin sensitizers. Swallowing copper compounds may cause vomiting and collapse. Target organs include respiratory system, nasal septum, skin, eyes, gastrointestinal system, kidneys, liver, and cardiovascular system.

Primary Routes of Entry: Ingestion, inhalation, skin and eye contact.

Signs and symptoms of Exposure: May cause skin or eye irritation with prolonged or repeated contact. Metal-fume fever, metallic taste, discoloration of skin or hair may indicate exposure to copper. Hemolysis, jaundice, anuria, hypotension, and convulsions may indicate acute copper poisoning.

Existing Conditions

Aggravated by Exposure: Graphite powder, emphysema, asthma, and other respiratory problems.

Ingredients

<table>
<thead>
<tr>
<th>Literature Referenced</th>
<th>Target Organ and Other Health Effects</th>
<th>Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTP IARC OSHA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mineral oil</td>
<td>IRR</td>
<td>NO NO NO</td>
</tr>
<tr>
<td>COPPER</td>
<td>BLO CNS GAS IMM TRR KID LIV MUT SKI</td>
<td>NO NO NO</td>
</tr>
<tr>
<td>GAS OIL</td>
<td>No Data</td>
<td>NO NO NO</td>
</tr>
<tr>
<td>ALUMINUM</td>
<td>TRR LUN</td>
<td>NO NO NO</td>
</tr>
<tr>
<td>Mineral oil, petroleum distillates</td>
<td>IRR</td>
<td>NO NO NO</td>
</tr>
<tr>
<td>Graphite</td>
<td>LIV</td>
<td>NO NO NO</td>
</tr>
<tr>
<td>Lithium soap</td>
<td>No Data</td>
<td>NO NO NO</td>
</tr>
<tr>
<td>SILICA, AMORPHOUS, precipitated</td>
<td>NUI</td>
<td>NO NO NO</td>
</tr>
</tbody>
</table>

Abbreviations

BLO Blood
GAS Gastrointestinal
IRR Irritant
LIV Liver
MUT Mutagen
SEN Sensory
CNS Central nervous system
IMM Immune system
KID Kidney
LUN Lung
NUI Nuisance dust
SKIN Skin
4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: Oil mist: Remove to fresh air. If symptoms persist, obtain medical attention.
Skin Contact: Flush with water.
Eye Contact: Flush at least 15 minutes with water. Obtain medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: None
Recommended Method: Tag-Closed Cup
Extinguishing Agents: Carbon dioxide, foam, dry chemical
Hazardous Products formed by Fire or Thermal Decomposition: Metal vapors, oxides of carbon, phosphorus, barium, zinc, sulfur, hydrogen sulfide
Unusual Fire or Explosion Hazards: None
Explosive Limits: 30% Aluminum metal
(% by volume in air)Lower 1% Gas oil
(% by volume in air)Upper Unknown Aluminum metal
7% Gas oil

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak: Remove sources of ignition. Take up with an inert absorbent. Store in a closed container until disposal.

7. HANDLING AND STORAGE

Safe Storage: Keep away from sources of ignition and hot surfaces.
(Contact Loctite Customer Service 1-800-243-4874 for shelf life information)
Handling: Keep away from eyes. Avoid prolonged skin contact. Avoid prolonged breathing of vapors.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Neoprene or oil resistant plastic gloves.
Ventilation: Provide adequate local ventilation to maintain vapor concentration below TLV if misting of oil
occurs or compound becomes dry.

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8. EXPOSURE CONTROLS, PERSONAL PROTECTION

See Section 2 for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Grey grease
Odor: Petroleum
Boiling Point: More than 500°F
pH: Does not apply
Solubility in Water: Nil
Specific Gravity: 1.1242
Volatile Organic Compound
(EPA Method 24): 10.66%; 122 grams per liter
Vapor Pressure: Less than 5mm at 80°F
Vapor Density: Approximately 2.9
Evaporation Rate
(Ether = 1): Not available

10. STABILITY AND REACTIVITY

Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: Strong oxidizers, alkalis, mineral acids, selected amines.

Conditions to Avoid: Not available
Hazardous Decomposition Products (non-thermal): Toxic carbon compounds, hydrogen.

11. TOXICOLOGICAL INFORMATION

See Section 2

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal: Incinerate following EPA and local regulations.

EPA Hazardous Waste Number: NH - Not a RCRA Hazardous waste material

14. TRANSPORTATION INFORMATION
PERMATEX INDUSTRIAL CORPORATION
ROCKY HILL, CONNECTICUT 06067
TELEPHONE: (860) 571-5100

MATERIAL SAFETY DATA SHEET

Product Name: Anti-Seize Lubricant
Item No.: 80209

14. TRANSPORTATION INFORMATION

Hazard Class or Division: Unrestricted
Identification Number: None
Marine Pollutant: None

IATA
Proper Shipping Name: Unrestricted
Class or Division: Unrestricted
UN or ID Number: None

15. REGULATORY INFORMATION

CA Proposition 65: No Proposition 65 chemicals are known to be present.

16. OTHER INFORMATION

Estimated NFPA(R) Code:
Health Hazard: 1
Fire Hazard: 1
Reactivity Hazard: 1
Specific Hazard: Does not apply

Estimated HMIS(R) Code:
Health Hazard: 1
Flammability Hazard: 1
Reactivity Hazards: 1
Personal Protection: See Section 8

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Stephen Repetto
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Revision: 0032