Material Safety Data Sheet

Trade Name: Premium (High) Vacuum Pump Oil
(13203. 13204)

Synonyms: Lubricating Oil

CAS No.: 64741-88-4

Date: 12-4-92

Material Hazard Evaluation
(Per OSHA Hazard Communication

Health: Non-Hazardous (OHCS).

Precautionary Statement: None.

HMIS Rating\(^1\): Health 0  Flammability 1  Reactivity 0

1.0 Generic Composition / Components

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>%</th>
<th>Hazard Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refined Petroleum Oil(s)</td>
<td>64741-88-4</td>
<td>100</td>
<td>Oral LD50(rat): &gt;15g/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye: Practically Non-Irritating</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin: Practically Non-Irritating</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Thin LC50/4H(rat): &gt;5,000 mg/m(^3)</td>
</tr>
</tbody>
</table>

\(^1\) Hazard Rating: least – 0; slight – 1; moderate – 2; high – 3; extreme – 4

Robinair assignment based on our evaluation per NFPA and NPCA guidelines.

NA = Not Applicable
ND = No Data
NE = Not Established
2.0 Physical Data

Physical Hazard Classification (Per 29 CFR Part 1910.1200)

<table>
<thead>
<tr>
<th>No</th>
<th>Combustible</th>
<th>No</th>
<th>Flammable</th>
<th>No</th>
<th>Pyrophoric</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Compressed Gas</td>
<td>No</td>
<td>Organic Peroxide</td>
<td>No</td>
<td>Reactivity</td>
</tr>
<tr>
<td>No</td>
<td>Explosive</td>
<td>No</td>
<td>Oxidizer</td>
<td>Yes</td>
<td>Stable</td>
</tr>
</tbody>
</table>

Boiling Point, 760 mmHg. °C(°F): ~373(~703)
Specific Gravity (60/60°F) (H.O. = 1): 0.87
Vapor Density (Air = 1): >1
% Volatiles by Volume: Negligible
Melting Point, °C(°F): NA
Vapor Pressure, mmHg (25°C): ~4 x 10^-3
Solubility in H.O., % by Weight: Negligible
Evaporation Rate (Butyl Acetate = 1): <1
pH of Undiluted Product: NA
Appearance and Odor: Faint yellow or amber liquid, bland odor

3.0 Fire and Explosion Data

| Flash Point, COC, °C(°F) | 224(435) |
| Flash Point, PMC, °C(°F) | 218(424) |
| Fire Point, COC, °C(°F) | 252(485) |

NFPA Rating:
- Health: 0
- Flammability: 1
- Reactivity: 0

Flammable Limits (% by volume in air):
- Lower: NA
- Upper: NA

Extinguishing Media:
- CO2, dry chemical, foam, water fog

Special Fire Fighting Procedure:
None

Unusual Fire or Explosion Hazard:
Water may cause frothing

4.0 Reactivity Data

Stability: Stable

Conditions Contributing to Instability:
None

Incompatibility:
Strong oxidants, strong acids, and caustics

Hazardous Decomposition Products:
CO2, CO

(thermal, unless otherwise specified)

Conditions Contributing to Hazardous Polymerization:
None

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Hazard Rating: least – 0; slight – 1; moderate – 2; high – 3; extreme – 4

Robinair assignment based on our evaluation per NFPA guidelines.

NA – Not Applicable
ND – No Data
NE – Not Established

Premium High Vacuum Pump Oil
5.0 Spill or Leak Procedures

Procedures if Material is Spilled:
- Remove sources of heat or ignition. Provide adequate ventilation. Contain leak.
- Small Spills: Absorb with suitable material such as rags, straw or sand.
- Large Spills: Contain spill in earthen dikes for later recovery.
- Report spills as required to appropriate authorities.

Waste Disposal:
- It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal.
- Check before disposing to be sure you are in compliance with all applicable laws and regulations.
- Chemtrec/RCRA Emergency Hotline Number: 800-424-9346.

Protective Measures During Repair and Maintenance of Contaminated Equipment:
- Refer to Section VII – Special Protection Information.
- Avoid prolonged contact with used oil.
- Wash exposed skin thoroughly with soap and water.

6.0 Health Hazard Data

Health Hazard Classification
(Per 29 CFR Part 1910.1200)

<table>
<thead>
<tr>
<th>No</th>
<th>Carcinogen</th>
<th>No</th>
<th>Corrosive</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Animal Carcinogen</td>
<td>No</td>
<td>Irritant</td>
</tr>
<tr>
<td>No</td>
<td>Suspect Carcinogen</td>
<td>No</td>
<td>Sensitizer</td>
</tr>
<tr>
<td>No</td>
<td>Mutagen</td>
<td>No</td>
<td>Teratogen</td>
</tr>
<tr>
<td>No</td>
<td>Highly Toxic</td>
<td>No</td>
<td>Target Organ</td>
</tr>
<tr>
<td>No</td>
<td>Toxic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product listed as Carcinogen or Potential Carcinogen by:
- NTP No | ARC No | OSHA No | Other No |

Toxicity Summary: Practically non-toxic.
Major Route(s) of Entry: Inhalation of incidental mists or vapors.
Acute Exposure Symptoms

Inhalation: Low risk at ambient temperatures. In enclosed spaces or when hot, vapors may reach concentrations sufficient to cause drowsiness, dizziness, headache, nausea, or lung irritation. Mists above TLV may cause chemical pneumonitis.

Dermal Contact: Transient, slight irritation.

Eye Contact: Practically non-irritant.

Ingestion: Low toxicity. Very large amounts may cause generalized depression, headache, drowsiness, nausea, vomiting or diarrhea. Small doses may produce irritation and diarrhea.

Chronic Exposure

Prolonged and/or frequent contact may cause drying, cracking (dermatitis) or folliculitis. Repeated, excessive exposure to mists or fumes may induce pulmonary irritation or chronic bronchitis.

Other Special Effects

None expected.

Medical Conditions Aggravated by Exposure

None.

First Aid and Emergency Procedures for Acute Effect

Inhalation: Remove to fresh air. Respiratory support, if necessary. Seek medical aid.

Dermal: Wash with soap and water. Do not wear heavily contaminated clothing before laundering.

Eyes: Flush with large volumes of water. Seek physician if any complications arise.

Ingestion: Do not induce vomiting. Seek medical aid.

Injection: Subcutaneous injection is a medical emergency. Seek medical aid immediately.

Notes to Physician: Following ingestion at a viscosity of around 200 SUS (100°F), there may be a minimal risk of aspiration into the lungs. For quantities above a few drops, careful cuffed tube lavage may still be considered. Aspirated material may cause chemical pneumonitis or lipid pneumonia. Subcutaneous or intramuscular injection requires prompt surgical debridement. If not familiar with technique, seek skilled advice.
7.0 Special Protection Information

*Ventilation Requirements:* Use in well ventilated area. In confined space, mechanical ventilation may be required to keep levels of certain components below mandated standards as evaluated by designated personnel.

**Permitted Threshold Air Concentrations:**

<table>
<thead>
<tr>
<th>Mineral Oil Mist</th>
<th>TLV-TWA</th>
<th>5mg/m³</th>
<th>OSHA-PEL</th>
<th>5mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV-STEL</td>
<td>10mg/m³</td>
<td>OSHA-STEL</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>TLV-Ceiling</td>
<td>ND</td>
<td>OSHA-Ceiling</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA-Peak</td>
<td>ND</td>
<td></td>
</tr>
</tbody>
</table>

**Specific Personal Protective Equipment:**

*Respiratory:* Normally none required. If high vapor or mist concentrations expected, use respirator approved for organic vapors and mists.

*Eyes:* Safety goggles, or chemical splash goggles if splashing is anticipated.

*Dermal:* Oil impervious gloves if frequent or prolonged contact is expected.

*Other Clothing or Equipment:* Wear body-covering work clothes to avoid prolonged or repeated exposure. Launder soiled work clothes before reuse.

8.0 Transportation and Special Precautions

**Storage:** Do not apply high heat or flame to container. Keep separate from strong oxidizing agents.

**Caution:** Empty containers may contain product residue which could include flammable or explosive vapors.

Consult appropriate Federal State and Local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

**DOT Information**

*Proper Shipping Name:*  
*Hazard Class:*  
*Hazard Identification Number:*  
*Placard:*  

*Petroleum Lubricating Oil*  
*Non-Hazardous*  
*None assigned*  
*None*
9.0 **Environmental Data**

**Product Name**
Premium High Vacuum Pump Oil
(13203, 13204)

**SARA TITLE III**
Section 313 – Toxic Chemicals
This product does not contain toxic chemicals of Section 313 of Title III of Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

**Components**

<table>
<thead>
<tr>
<th>CAS#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

**Section 311 – Hazard Categories**

<table>
<thead>
<tr>
<th>Yes</th>
<th>Not Applicable</th>
<th>No</th>
<th>Fire Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Acute (Immediate Health Hazard)</td>
<td>No</td>
<td>Sudden Release of Pressure Hazard</td>
</tr>
<tr>
<td>No</td>
<td>Chronic (Delayed Health Hazard)</td>
<td>No</td>
<td>Reactive Hazard</td>
</tr>
</tbody>
</table>

**Section 302(A) – Extremely Hazardous Substances**

(RQ = Reportable Quantity)
(TPQ = Threshold Planning Quantity)

This product does not contain Extremely Hazardous Substances of Section 302/(A).

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>%</th>
<th>RQ lbs.</th>
<th>TPQ lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
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</tbody>
</table>

**Clean Water Act**

Under Section 311 (b) (4) of the Clean Water Act, discharges of crude oil and petroleum products in any kind or form to surface waters must be immediately reported to the National Response Center: 800-424-8802.

**Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) – Section 102 Hazardous Substances**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>%</th>
<th>RQ lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum and petroleum fractions are excluded from the list of CERCLA hazardous substances by Section 101(14) of CERCLA.</td>
<td></td>
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</tr>
</tbody>
</table>

**New Jersey Worker & Community Right-to-Know Act**

Petroleum Oil

**Canada**

WHMIS (Workplace Hazardous Material Information System)
("NC") Not Controlled
10.0 Labeling

**NOTE**

This product has been determined not to be a physical or a health hazard as defined by the OSHA Hazard Communication Standard.

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R.D. Clark
NAME

Safety & Environmental Administrator
TITLE

[Signature]
SIGNATURE

12-4-92
DATE

NA - Not Applicable
ND - No Data
NE - Not Established