SECTION 1: PRODUCT IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Vacuum Pump Oil 32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code #</td>
<td>226A</td>
</tr>
<tr>
<td>CAS #</td>
<td>Not applicable for mixtures</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Royal Mfg Co, LP</td>
</tr>
<tr>
<td>Synonym</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Chemical Formula</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>No</td>
</tr>
<tr>
<td>Address</td>
<td>516 S. 25th West Ave.</td>
</tr>
<tr>
<td></td>
<td>Tulsa, OK 74127</td>
</tr>
<tr>
<td>Phone</td>
<td>(918) 584-2671</td>
</tr>
<tr>
<td>Emergency Contact</td>
<td>CHEMTREC (24 hour Emergency Telephone), call: 1-800-424-9300</td>
</tr>
<tr>
<td></td>
<td>International CHEMTREC, call: 1-800-255-3924</td>
</tr>
<tr>
<td>Recommended Use</td>
<td>Vacuum Pump Oil</td>
</tr>
<tr>
<td>Restrictions on Use</td>
<td>This product must not be used in applications other than recommended in Section 1 without taking the advice from supplier/manufacturer.</td>
</tr>
</tbody>
</table>

SECTION 2: HAZARD(S) IDENTIFICATION

Classifications:
- Skin sensitization: Category 1
- Aquatic Hazard – Acute: Category 3
- Aquatic Hazard – Long-term: Category 4

Pictograms:

Signal Word: Warning

Hazard Statements:
- May cause an allergic skin reaction.
- Harmful to aquatic life.
- May cause long lasting harmful effects to aquatic life.

Precautionary Statements:
- P101: If medical advice is needed have product container or label at hand
- P102: Keep out of reach of children
- P103: Read Label before use
- P210: Keep away from Heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
- P211: So not spray on an open flame or other ignition source.
- P232: Protect from Moisture.
- P233: Keep container tightly closed
- P273: Avoid release to the environment.
- P280: Wear protective gloves/protective clothing/eye protection/face protection
P404: Store in a closed container

Percent of the mixture consisting of ingredient(s) of unknown toxicity: None

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Designation</th>
<th>% of Comp.</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc Alklyldithiophosphate</td>
<td>&lt; 0.1%</td>
<td>84605-29-8</td>
</tr>
<tr>
<td>Butylated Phenol</td>
<td>&lt; 0.1%</td>
<td>Confidential</td>
</tr>
<tr>
<td>Calcium Sulfonate</td>
<td>&lt; 0.1%</td>
<td>61789-86-4</td>
</tr>
<tr>
<td>Aryl Phosphate</td>
<td>&lt; 0.1%</td>
<td>101-02-0</td>
</tr>
<tr>
<td>2-Ethylhexanol</td>
<td>&lt; 0.1%</td>
<td>104-76-7</td>
</tr>
<tr>
<td>Aryl Thiophosphate</td>
<td>&lt; 0.1%</td>
<td>597-82-0</td>
</tr>
<tr>
<td>Alkylated phenol</td>
<td>&lt; 0.1%</td>
<td>121158-58-5</td>
</tr>
<tr>
<td>Substituted Triazole</td>
<td>&lt; 0.1%</td>
<td>Confidential</td>
</tr>
</tbody>
</table>

### SECTION 4: FIRST AID MEASURES

- **Eyes:** Flush eyes with water for at least 15 minutes. If irritation persists, seek medical attention.
- **Skin:** Immediately remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.
- **Inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration using a pocket mask type resuscitator. Call a physician immediately.
- **Ingestion:** Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

### SECTION 5: FIRE FIGHTING MEASURES

- **Fire Hazard:** No
- **Flash Point °C (°F):** > 93.0° (199.4°)
- **Flammable Limits:** LOWER: Not determined UPPER: Not determined
- **Extinguishing Media:** Water Mist, Foam, Dry Powder, CO2
- **Special protective Equipment and firefighting procedures:** Not determined
- **Unusual Fire & Explosion:** Not determined

### SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Precautions:** Vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged container or spilled material unless wearing appropriate protective clothing/equipment. Ventilate the closed area.
- **Spills / Leaks:** Isolate the spill/leak area in all directions for about 50 meters (150 ft) for liquids and about 25 meters (75 ft) for solids and semi-solids. Eliminate all ignition sources (no smoking, flares, sparks/flames in close vicinity). Keep unauthorized persons away and ventilate closed space before entering

### SECTION 7: HANDLING & STORAGE

- **Handling:** Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and prompt removal of material from eyes skin and clothing.
- **Storage:** Store in a sealed container in a cool, dry environment.
SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:
OSHA Permissible: 5 mg/m³

Exposure Limits (PELs):
Threshold Limit Values (TLVs): 10 mg/m³

Engineering Controls:
N/A

Personal Protective Equipment:
Face: Safety Glasses
Eyes: Safety Glasses
Skin: Gloves
Respiratory: N/A

Pictograms:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid
Odor: Petroleum
Odor Threshold: Not determined
pH: Not determined
Melting Point °C (°F): Not determined
Freezing Point °C (°F): Not determined

Pour Point °C (°F): -21.0° (-5.8 °)
Boiling Range: N/A
Flash Point °C (°F): > 199.4° (93.0°)
Flash Point Method used: ASTM D92
Evaporation Rate: None
Flammability: N/A

Upper Flammability/Explosive Limit: Not determined
Lower Flammability/Explosive Limit: Not determined
Vapor Pressure: Not determined
Vapor Density: Not determined
Vapor Temperature °C (°F): Not determined
Relative Density/Specific Gravity: 0.8650

Solubility: Not Water Soluble
Partition Coefficient: Not determined
Auto-ignition temperature: Not determined
Decomposition temperature: Not determined

Viscosity (cSt): 32.00 @ 40° C
VOC Content: N/A
VOC Less Water & Exempts: N/A

SECTION 10: STABILITY AND REACTIVITY

Chemical Reactivity: Not determined
Chemical Stability: Stable under normal ambient temperature and conditions.
Conditions to Avoid: Extreme temperature and direct sunlight/heat/flame
Materials to Avoid: Strong oxidizing agents
Hazardous Decomposition: Not expected

SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation
Description of effects from short- and long-term exposure: Not known
Description of symptoms: Not known
Measure of toxicity: Not determined
Ingestion

Description of effects from short- and long-term exposure: Not known
Description of symptoms: May cause nausea and vomiting.
Measure of toxicity: Not known

Eyes

Description of effects from short- and long-term exposure: Not known
Description of symptoms: Contact may cause eye irritation.
Measure of toxicity: Not known

Skin

Description of effects from short- and long-term exposure: Not known
Description of symptoms: Prolonged contact may cause severe skin irritation and possible burns.
Measure of toxicity: Not known

Carcinogens listing:

- NTP: No
- IARC: No
- OSHA: No
- GHS: No

Chronic Toxicity: No

SECTION 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: No data available
Biodegradability: No data available
Bioaccumulation: No data available

SECTION 13: DISPOSAL CONSIDERATION

Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations. Regulations may vary by location.

SECTION 14: TRANSPORT INFORMATION

UN Number: 
Proper Shipping Name: Royal Vacuum Pump Oil 32

Pictograms:

SECTION 15: REGULATORY INFORMATION

OSHA Regulated Hazard: No
DOT Regulated: No
Vacuum Pump Oil 32
Date issued: 7-Jun-16

EC Classification: Non-applicable
TSCA Status: In compliance with TSCA inventory requirements for commercial purposes
SARA 312 Regulated Chemical(s): No
SARA 313 Regulated Chemical(s): Yes
EPA Registration Number: Non-applicable
California Prop. 65:
- Toluene: 0.001717%
- Benzene: 0.000001%
PA Right to know Chemical(s): None known
NJ Right to know Chemical(s): None known
Additional State Regulations: None known
Canada: Non-applicable

SECTION 16: OTHER INFORMATION

The above Information is based on the present state of our knowledge of the product at the time of publication. No warranty is implied with respect to the quality or the specification of the product and the user must satisfy themselves that the product is entirely suitable for their purposes.

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