1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Name R&O #32 Turbine, Circulating & Compressor Oil

Other means of identification
Product Code 176
Revision Number 2304
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use Lubricant.
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address U.S. Lubricants A Division of U.S. Venture, Inc. 425 Better Way Appleton, WI 54915

Emergency telephone number
Company Phone Number 800-490-4900
24 Hour Emergency Phone Number 800-688-4005 DTCG84-01-A-900043

2. HAZARDS IDENTIFICATION

Classification
Serious eye damage/eye irritation Category 2B

Label elements

Emergency Overview

Warning

Hazard statements
Causes eye irritation

Appearance Viscous Physical state Liquid Odor Mild Petroleum

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses (if present and easy to do). Continue rinsing. If eye irritation persists: Get medical advice/attention

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated heavy paraffinic</td>
<td>64742-54-7</td>
<td>90-99</td>
<td>*</td>
</tr>
</tbody>
</table>
* The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**First aid measures**

**Eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin Contact**
If skin irritation persists, call a physician. Wash contaminated clothing before reuse. Wash with soap and water.

**Inhalation**
Remove to fresh air.

**Ingestion**
Do NOT induce vomiting. Get medical attention. Drink 1 or 2 glasses of water.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**
No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**
Caution: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**
No information available.

**Explosion data**

- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**UNUSUAL FIRE & EXPLOSION HAZARDS**
Toxic Fumes may be evolved on burning or exposure to heat. Pressure may increase in overheated closed containers. Store below 120°F

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Stop leak if you can do it without risk.

**Environmental precautions**

**Environmental precautions**
See Section 12 for additional ecological information.
Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Soak up with inert absorbent material. Prevent product from entering drains. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing fume/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a dry, cool and well-ventilated place. Store at temperatures not exceeding 120°F.

Incompatible materials
Incompatible with oxidizing agents. Incompatible with strong acids and bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear protective nitrile or Neoprene™ gloves.

Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General Hygiene Considerations
Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Viscous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Light amber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Mild Petroleum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Essentially Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>396°F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Evaporation rate

Less than 0.01 (@1ATM and 25°C.

n-butyl acetate=1

Flammability (solid, gas)

No information available

Flammability Limit in Air

Upper flammability limit:
10% (Estimated Value)

Lower flammability limit:
1% (Estimated Value)

Vapor pressure

Less than 0.01 mm HG

Vapor density

Greater than 1 (Air=1)

Specific Gravity

0.867 lbs/gal: 7.22

Water solubility

Insoluble in water

Solubility in other solvents

No information available

Partition coefficient

No information available

Autoignition temperature

No information available

Decomposition temperature

No information available

Kinematic viscosity

30-34 cSt@ 40°C

Dynamic viscosity

No information available

Explosive properties

No information available

Oxidizing properties

No information available

Other Information

Softening point

No information available

Molecular weight

No information available

VOC Content (%)

Negligible

Density

No information available

Bulk density

No information available

10. STABILITY AND REACTIVITY

Reactivity

Not Applicable

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Strong oxidizing agents. Heat, flames and sparks.

Incompatible materials

Incompatible with oxidizing agents. Incompatible with strong acids and bases.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

No data available

Inhalation

Avoid breathing vapors or mists. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Eye contact

Contact with eyes may cause irritation.
**Skin Contact**

Prolonged contact may cause redness and irritation.

**Ingestion**

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhea.

---

**Information on toxicological effects**

**Symptoms**

No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation**

Irritating to skin.

**Serious eye damage/eye irritation**

Irritating to eyes.

**Irritation**

May cause skin and eye irritation. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION.

**Sensitization**

No information available.

**Germ cell mutagenicity**

No information available.

**Carcinogenicity**

No information available.

**Reproductive toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Aspiration hazard**

No information available.

---

**Numerical measures of toxicity - Product Information**

---

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Harmful to aquatic life with long lasting effects

0.11% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated heavy paraffinic</td>
<td>5000: 96 h Oncorhynchus mykiss mg/L LC50</td>
<td>1000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and degradability**

---

**Other adverse effects**

No information available

---

**13. DISPOSAL CONSIDERATIONS**

**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.
14. TRANSPORT INFORMATION

**DOT**
Not regulated

**ICAO (air)**
Not regulated

**IATA**
Not regulated

15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>All components of this material are on the US TSCA Inventory or are exempt.</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Does not comply</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>IECSC</td>
<td>Does not comply</td>
</tr>
<tr>
<td>KECL</td>
<td>Does not comply</td>
</tr>
<tr>
<td>PICCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>AICS</td>
<td>Does not comply</td>
</tr>
</tbody>
</table>

**Legend:**

- **TSCA**: United States Toxic Substances Control Act Section 8(b) Inventory
- **DSL/NDSL**: Canadian Domestic Substances List/Non-Domestic Substances List
- **EINECS/ELINCS**: European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- **ENCS**: Japan Existing and New Chemical Substances
- **IECSC**: China Inventory of Existing Chemical Substances
- **KECL**: Korean Existing and Evaluated Chemical Substances
- **PICCS**: Philippines Inventory of Chemicals and Chemical Substances
- **AICS**: Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>No</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**
California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information
EPA Pesticide Registration Number  Not Applicable

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Health hazards: 1
- Flammability: 1
- Instability: 0
- Physical hazards: 0
- Personal protection: X

Issue Date          22-Dec-2010
Revision Date       29-Sept-2015
Revision Note       No information available

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet