Heat Transfer Oil
Product Code: 650

SECTION 1: PRODUCT IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Heat Transfer Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code #</td>
<td>650</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>Heat Transfer 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: Aquatic Hazard – Acute: Category 3
Aquatic Hazard – Long-term: Category 4

Pictograms: None

Signal Word: None

Hazard Statements: 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>CAS No.</th>
<th>% of Comp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</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):
N/A

Engineering Controls:
N/A

Personal Protective Equipment:
Face: Safety Glasses
Eyes: Safety Glasses
Skin: Gloves
Respiratory: Pictograms:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark Amber Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Petroleum</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting Point °C (°F):</td>
<td>Not determined</td>
</tr>
<tr>
<td>Freezing Point °C (°F):</td>
<td>Not determined</td>
</tr>
<tr>
<td>Pour Point °C (°F):</td>
<td>-15.0° (5.0 °F)</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point °C (°F):</td>
<td>&gt; 199.4° (93.0°)</td>
</tr>
<tr>
<td>Flash Point Method used:</td>
<td>ASTM D92</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability</td>
<td>None</td>
</tr>
<tr>
<td>Upper Flammability/Explosive Limit:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Lower Flammability/Explosive Limit:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Temperature °C (°F):</td>
<td>Not determined</td>
</tr>
<tr>
<td>Relative Density/Specific Gravity:</td>
<td>0.8700</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Not Water Soluble</td>
</tr>
<tr>
<td>Partition Coefficient:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity (cSt):</td>
<td>7.00 @ 100° C</td>
</tr>
<tr>
<td>VOC Content:</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC Less Water &amp; Exempts:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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 known
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 or repeated skin contact may cause irritation.
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 Heat Transfer Oil
Pictograms:

SECTION 15: REGULATORY INFORMATION

OSHA Regulated Hazard: No
DOT Regulated: No
E C Classification: Non-applicable
Heat Transfer Oil
Date issued: 18-Apr-16

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: None
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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End of SDS