



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name: RelaTECH R & O Turbine Oils
Chemical Name: Circulating Oil
Chemical Family: Blend

Manufacturer: RelaDyne LLC

5228 River Road
Cincinnati, Ohio 45233

Telephone Numbers:

(513) 941-2800 (513) 467-3486 (Fax)
1-800-786-2803 www.reladyne.com

2. Composition/Information on Ingredients

Table with columns: Component/CAS Number, LO%, HI%, TWA, OSHA STEL, ACGIH TWA, ACGIH STEL, Unit. Rows include Severely Solvent Refined Heavy Paraffinic Petroleum Oil, Acrylic Copolymer, Calcium Sulfonate, and 2-Ethylhexanol.

3. Hazard Identification

Emergency Overview

May cause skin irritation

Appearance: Amber Fluid Odor: Slight Odor

Potential Health Effects:

Inhalation: No effects expected. Ingestion: Practically non-toxic.

Eye Contact: Expected to be minor eye irritant.

Skin Contact: Practically non-toxic if absorbed (LD50> 2000 MG/KG). May cause moderate irritation with prolonged or repeated contact.

Carcinogen Listed By: IARC (N0) NTP (NO) OSHA (NO) ACGIH (NO) OTHER (NO)

NFPA/HMIS CLASSIFICATION

HEALTH 0/0
FLAMMABILITY 1/1
REACTIVITY 0/0

HAZARD RATING

0 = LEAST 1 = SLIGHT
2 = MODERATE 3 = HIGH
4 = EXTREME

#### 4. First Aid Measures

<b>Inhalation:</b>	Move to fresh air.
<b>Eye Contact:</b>	Flush with water for at least 15 minutes. If irritation persists, obtain medical assistance.
<b>Skin Contact:</b>	Wash with soap and water until no odor remains. If redness or swelling develops, obtain medical assistance. Wash clothing before reuse.
<b>Ingestion:</b>	Practically non-toxic. Induction of vomiting not required. Obtain emergency medical attention. Small amounts which accidentally enter mouth should be rinsed out until taste of it is gone.

#### 5. Fire Fighting Measures

<b>Flashpoint (Method):</b>	395°F Minimum COC; 201°C Minimum COC
<b>Flammable Limits:</b>	Not established
<b>Auto Ignition Temp:</b>	675°F Estimated; 359°C Estimated
<b>Extinguishing Media:</b>	Water spray, dry chemical, carbon dioxide (CO <sub>2</sub> ), foam.
<b>Flammability Classification:</b>	Not Flammable
<b>Fire Fighting Instructions:</b>	This material will burn although it is not easily ignited. For fires involving this material, do not enter any confined space without proper PPE, including an SCBA. Avoid breathing smoke and vapor.
<b>Fire Fighting Equipment:</b>	Fire may produce toxic thermal decomposition products; Wear an (SCBA). Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool.
<b>Hazardous Combustion Products:</b>	Highly dependent on combustion conditions. A complex mixture forms when this material undergoes combustion. Examples: carbon dioxide, water vapor, unidentified organic compounds.

#### 6. Accidental Release Measures

<b>Spills or Leaks:</b>	Recover unable material by convenient method; residual may be removed by wipe or wet mop.
<b>Small Spills:</b>	Small pills should be absorbed with a suitable inert material (sand, earth, clay, etc.). Remove the absorbed material and place in an appropriate chemical waste container for disposal.
<b>Large Spills:</b>	For large spills, dike and pump into suitable containers. Clean up residual with suitable inert material.
<b>Containment Regulatory Requirements:</b>	For large spills, dike far ahead of liquid spill for later disposal. Follow applicable Federal, State, and Local regulations.

#### 7. Handling and Storage

<b>Precautionary Measures:</b>	Keep out of reach of children.
<b>Static Hazard:</b>	Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient.
<b>Storage Requirements:</b>	NFPA Class IIIB Storage.

#### 8. Exposure Controls/Personal Protection

<b>General Considerations:</b>	Consider the potential hazards of this material (see Section 3); applicable exposure limits, job activities, and other substances when designing engineering controls suitable for the workplace.
<b>Engineering Controls:</b>	Use in a well ventilated area.
<b>Personal Protective Equipment:</b>	
<b>Skin:</b>	No special protective clothing is normally needed.
<b>Eye/Face:</b>	No special eye protection is normally needed.

**Work and Hygienic Practices:** Wash emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

### 9. Physical and Chemical Properties

<b>Appearance/Odor:</b>	Amber Fluid/Slight Odor	<b>Boiling Point:</b>	High
<b>Vapor Pressure:</b>	<0.0001 (MM HG @ 20°C)	<b>Melting Point:</b>	N/A
<b>Molecular Weight:</b>	N/A (G/Mole)	<b>Packing Density:</b>	N/A
<b>Pour Point, °C:</b>	-34 (Estimated)	<b>Octanol/Water COEFF.:</b>	N.D.
<b>Evaporation Rate:</b>	1000X Slower (Ethyl Ether =1)	<b>Odor Threshold:</b>	N.D.
<b>Specific Gravity:</b>	0.86 (Water =1)	<b>Vapor Density:</b>	10+ (Air =1)
<b>Viscosity:</b>	150 SUS @ 100°F    32 CST @ 40°C	<b>API Gravity:</b>	31.0 (Estimated)
<b>Solubility:</b>	Soluble in hydrocarbons; almost completely insoluble in water		

### 10. Stability and Reactivity

**Stability:** Stable.

**Conditions To Avoid:** Strong oxidizing agents.

**Materials To Avoid:** Strong oxidizing agents.

**Hazardous Polymerization:** Will not occur.

**Hazardous Decomposition:** Combustion will produce carbon monoxide and asphyxiants.

### 11. Toxicological Information

#### For the Product –

**Inhalation:** Low acute toxicity. **Skin:** Expected to be acutely non-toxic if absorbed. Mild irritation with prolonged or repeated contact. **Eye:** Mildly irritating on contact. **Oral:** Practically non-toxic acute toxicity: estimated oral LD50 in rats is: >15g/kg. estimated draize skin irritation score is 2.10 out of 8.0

**Severely Solvent Refined Heavy Paraffinic Petroleum Oil:** **Inhalation:** Low acute toxicity. **Skin:** Practically non-toxic if absorbed may cause moderate irritation with prolonged and repeated contact. **Eye:** Minimally irritating on contact. **Ingestion:** Practically non-toxic if swallowed.

**Ethylene/Propylene Copolymer:** No data available for all routes of exposure.

**Zinc Dialkyl Dithiophosphate:** **Inhalation:** Toxic hydrogen sulfide is generated when heated above 200 deg. F. This can cause central nervous system (brain) effects, nausea, dizziness, confusion, loss of sense of smell, muscle cramps, in coordination, unconsciousness, coma, respiratory failure, or death.

**Skin:** Prolonged or repeated contact may cause moderate irritation, redness, drying, cracking, dermatitis. **Eye:** Irritant. **Oral:** Harmful if swallowed.

**Acrylic Copolymer:** No data available for all route of exposure.

**Borated Polyisobut Enyl Succinic Anhydride:** No data available for all routes of exposure.

### 12. Ecological Information

**Ecotoxicity:** No data available.

**Environmental Fate:** This material is not expected to be readily biodegradable.

### 13. Disposal Information

Follow federal, state, and local regulations. Not RCRA hazardous waste if uncontaminated. If “used”, RCRA criteria (ignitability, reactivity corrosivity, toxicity characteristics) must be determined. Do not flush to drain/storm sewer. Contract to authorized disposal service.

### 14. Transportation Information

#### DOT

Proper Shipping Name: Non-Hazardous Petroleum Lubricating Oil

Shipping Symbols: Not regulated

Hazard Class: Not regulated

ID Number: Not regulated  
Packing Group: Not regulated  
Label Required: Not regulated  
Packaging Authorizations: Not regulated  
Quantity Limitations: None

*15. Regulatory Information*

TSCA: This material is in compliance with the TOXIC SUBSTANCES CONTROL ACT (15 USC 2601-2629) and is listed in the TSCA inventory.

SARA 302 THRESHOLD PLANNING QUANTITY		N/A	
SARA 304 REPORTABLE QUANTITY		N/A	
SARA 311/312 REPORTING:	Health:	Immediate (Acute)	No
	Health:	Delayed (Chronic)	No
	Physical:	Fire	No
	Physical:	Sudden Release of Pressure	No
	Physical:	Reactive	No

When a product and/or component is listed below, the regulatory list on which it appears is indicated.

ZINC DIALKYL DITHIOPHOSPHATE – NJ 01

01 = SARA 313	02 = SARA 302/304	03 = IARC CARCINOGEN
04 = OSHA CARCINOGEN	05 = ACGIH CARCINOGEN	06 = NTP CARCINOGEN
07 = CERCLA 302.4	08 = WHMIS CONTROLLED PROD.	
10 = OTHER CARCINOGEN		
PA = PA RTK	NJ = NEW JERSEY RTK	CA = CALIFORNIA PROP 65
MA = MASS. RTK	MI = MICHIGAN 406	MN = MINNESOTA RTK
FL = FLORIDA	RI = RHODE ISLAND	IL = ILLINOIS
NY = NEW YORK	WV = WEST VIRGINIA	CT = CONNECTICUT
LA = LOUISIANA	ME = MAINE	OH = OHIO

*16. Other Information*

**RelaDyne LLC  
Oil Distributing Company  
5228 River Road  
Cincinnati, Ohio 45233**

The information on this form is furnished solely for the purpose of compliance with the OSHA Act, and shall not be used for any other purpose. The information herein is given in good faith and is based on data considered accurate. However, no warranty, expressed or implied, is made regarding the accuracy of these data or the results to be obtained from the use thereof.

N.A. = Not Applicable

N.D. = No Data

N.E. = Not Established