

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Issuing Date 14-Oct-2019

Revision Date 14-Oct-2019

Revision Number 1

## 1. Identification

### Product identifier

Product Name R&O #46 Turbine, Circulating & Compressor Oil

### Other means of identification

Product Code(s) 177

### Other information

### Recommended use of the chemical and restrictions on use

Recommended use Lubricant

Restrictions on use No information available.

### Details of the supplier of the safety data sheet

#### Supplier Address

U.S. Lubricants, a Division of U.S. Venture Inc.  
425 Better Way  
Appleton, WI 54915  
800-490-4900

### Emergency telephone number

Emergency Telephone 800-490-4900  
Chemtrec 1-800-424-9300 (Account# 705487)

## 2. Hazard(s) identification

### Classification

Not classified.

### Label elements

#### **Hazard statements**

Not classified.

### Other information

Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Hydrotreated heavy paraffinic petroleum distillate	64742-54-7	90-100	-	-
2,6-Di-tert-butylphenol	128-39-2	<1	-	-
Mineral oil*	-	<1	-	-

#### **Chemical Additions**

\* The mineral oil contained in this material may be described by one or more of the following CAS Nos.: 64742-54-7, 64742-65-0, 64742-55-8, and 64742-56-9.

### 4. First-aid measures

#### Description of first aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if symptoms occur.
<b>Skin contact</b>	Wash skin with soap and water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.
<b>Ingestion</b>	If large quantities of this material are swallowed, call a physician immediately.

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

**Symptoms** None known.

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

**Note to physicians** Treat symptomatically.

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Dry chemical, CO2, water spray or regular foam.
<b>Unsuitable extinguishing media</b>	Water spray jet.
<b>Specific hazards arising from the chemical</b>	Thermal decomposition can lead to release of irritating gases and vapors.

**Hazardous combustion products** Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Extremely slippery when spilled. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Deny entry to unauthorized and unprotected personnel.

### Methods and material for containment and cleaning up

**Methods for containment** Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a cool, well-ventilated place.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrotreated heavy paraffinic petroleum distillate	TWA: 5 mg/m <sup>3</sup> (inhalable fraction)	-	-

64742-54-7			
Mineral oil* -	TWA: 5 mg/m <sup>3</sup> (inhalable fraction)	PEL: 5 mg/m <sup>3</sup> (mist)	REL: 5 mg/m <sup>3</sup> (mist) STEL: 10 mg/m <sup>3</sup> (mist)

**Appropriate engineering controls**

**Engineering controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      Goggles.

**Hand protection**                            Impervious gloves. Protective gloves.

**Skin and body protection**                Wear suitable protective clothing.

**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**        Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse.

**9. Physical and chemical properties****Information on basic physical and chemical properties****Appearance**

**Physical state**                                Liquid

**Color**    Light amber

**Odor**    Mild Petroleum

**Odor threshold**                              No information available

**Property****Values****Remarks • Method**

<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	204.4 °C / 400 °F	
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	0.86 (7.28 lbs/gal)	
<b>Water solubility</b>	Insoluble in water	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	44 - 48 cSt	@ 40 °C

**Dynamic viscosity** No data available None known

**Other information**

**Explosive properties** No information available.  
**Oxidizing properties** No information available.  
**Softening point** No information available  
**Molecular weight** No information available  
**VOC Content (%)** Negligible  
**Liquid Density** No information available  
**Bulk density** No information available

**10. Stability and reactivity**

**Reactivity** None under normal use conditions.  
**Chemical stability** Stable under normal conditions.  
**Possibility of hazardous reactions** None under normal processing.  
**Conditions to avoid** Extremes of temperature and direct sunlight.  
**Incompatible materials** Strong oxidizing agents.  
**Hazardous decomposition products** None known based on information supplied.

**11. Toxicological information****Information on likely routes of exposure**

**Inhalation** Specific test data for the substance or mixture is not available.  
**Eye contact** Specific test data for the substance or mixture is not available. Contact with eyes may cause irritation.  
**Skin contact** Specific test data for the substance or mixture is not available.  
**Ingestion** Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** None known.

**Acute toxicity****Numerical measures of toxicity**

No information available

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrotreated heavy paraffinic petroleum distillate	> 15 g/kg ( Rat )	> 5000 mg/kg ( Rabbit )	
2,6-Di-tert-butylphenol	> 5000 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	

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

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** The classification listed below for the petroleum distillates in this product pertains to those that contain more than 3% DMSO extract as measured by IP 346. The petroleum distillates in this product do not meet that criteria to be classified as carcinogens.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Hydrotreated heavy paraffinic petroleum distillate 64742-54-7	A2	Group 1	Known	X
Mineral oil* -	A2	Group 1	Known	X

**Legend****ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP (National Toxicology Program)**

Known - Known Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** Based on product level data, this product does not meet the requirement to be classified as an aspiration hazard. However, this product contains an ingredient that may cause aspiration if swallowed.

**12. Ecological information**

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrotreated heavy paraffinic petroleum distillate 64742-54-7	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
2,6-Di-tert-butylphenol 128-39-2	-	-	-	EC50: =0.45mg/L (48h, Daphnia magna)
Mineral oil* -	-	LC 50: > 100 mg/L (4d, Fathead Minnow)	-	EC 50: > 10,000 mg/L (2d, Water flea (Daphnia magna)) EC 50: > 10 mg/L (21d, Water flea (Daphnia magna)) NOEC: > 10 mg/L (21d, Water flea)

				(Daphnia magna)
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<b>Persistence and degradability</b>	No information available.
<b>Bioaccumulation</b>	No information available.
<b>Mobility in soil</b>	No information available.
<b>Other adverse effects</b>	No information available.

### 13. Disposal considerations

#### Waste treatment methods

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.

### 14. Transport information

<b><u>DOT</u></b>	Not regulated
<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b><u>IMDG</u></b>	Not regulated

### 15. Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

**TSCA** Contact supplier for inventory compliance status.  
**DSL/NDSL** Contact supplier for inventory compliance status.

#### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**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**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

**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 contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
Toluene - 108-88-3	Developmental

**U.S. State Right-to-Know Regulations**

**US State Regulations** This product does not contain any substances regulated by state right-to-know regulations

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

<b><u>NFPA</u></b>	Health hazards 1	Flammability 1	Instability 0	Physical and chemical properties -
<b><u>HMIS</u></b>	Health hazards 1	Flammability 1	Physical hazards 0	Personal protection X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)



Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

<b>Issuing Date</b>	14-Oct-2019
<b>Revision Date</b>	14-Oct-2019
<b>Revision Note</b>	Initial Release.

**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**