

Material Safety Data Sheet

Prepared according to 29 CFR 1910.1200

1. Chemical Product and Company Identification

American Refining Group, Inc.
77 North Kendall Avenue
Bradford, PA 16701 USA
Tel: (814) 368.1200
www.amref.com



Product Name	R&O AW ISO VG 22 Hydraulic Oil 1000+ Hours
Product Code	7327
CAS Number	Not applicable for mixtures
Synonyms	Single Grade R&O AW
Generic Chemical Name	Severely hydrotreated & hydrocracked base oil (petroleum)
Product Type	Mixture
Transportation Emergency Phone No.	Chemtrec: 1-800-424-9300 (24 HRS)
ARG Emergency Phone No.	814-368-1297 (24 HRS)
MSDS E-Mail	msds@amref.com

2. Hazards Identification

Appearance	Amber
Odor	Bland
Signal Word	WARNING! Harmful if swallowed. Can enter lungs and cause damage Prolonged or repeated contact may dry skin and cause irritation May cause eye irritation May cause respiratory tract irritation
OSHA Regulatory Status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Precautions	
Inhalation	Avoid breathing dust/fume/gas/mist/vapors/spray. Keep container tightly closed. Use only with adequate ventilation.
Eyes	Avoid contact with eyes. Wash thoroughly after handling.
Skin	Avoid contact with skin and clothing. Wash thoroughly after handling.
Medical Conditions Aggravated by Exposure	Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product
Chronic Effects	See Section 11 for complete health hazard information
Environmental Effects	See Section 12 for complete ecological information

3. Composition / Information on Ingredients

CAS No.	Component	Percent
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64741-89-5	Distillates (petroleum), solvent-refined light paraffinic	10-15
64742-54-7	Hydrotreated heavy paraffinic distillate	30-40

Component Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Mineral Oil (See Section 8)

4. First Aid Measures

Eyes

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion

DO NOT INDUCE VOMITING. If conscious, rinse out mouth with water. Get medical attention immediately.

Note to Physicians

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire Fighting Measures

Flammable Properties

Not available

Extinguishing Media

Use dry chemical, CO₂, water spray (FOG) or foam

Specific Hazards Arising from Chemical

Elevated temperatures can lead to the formation of irritating fumes and vapors. Decomposition products may include the following materials: Carbon dioxide and Carbon monoxide.

Protective Equipment and Precautions for Firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

Personal Precautions

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material.

6. Accidental Release Measures

Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental Precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution.

Methods for Containment

Stop leak if without risk.

Methods for Cleanup

Move containers from spill area. Approach release from upwind. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. Handling and Storage

Handling Procedures

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Use non-sparking tools.

Shipping and Storing Procedures

Store in accordance with local regulations. Store in a segregated and approved area. Keep in the original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Do not store in unlabeled containers. Store and use away from heat, sparks, open flame or any other ignition source. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers that retain product residue may be hazardous. Do not reuse container.

8. Exposure Controls / Personal Protection

Component Exposure Limits

Petroleum distillates, Hydrotreated Heavy Paraffinic Distillate (64742-54-7)

ACGIH TLV:	TWA:	N/A ppm	TWA:	5 mg/m ³	STEL:	N/A ppm	STEL:	10 mg/m ³
OSHA PEL:	TWA:	N/A ppm	TWA:	5 mg/m ³	STEL:	N/A ppm	STEL:	N/A mg/m ³
NIOSH REL:	TWA:	N/A ppm	TWA:	N/A mg/m ³	STEL:	N/A ppm	STEL:	N/A mg/m ³

N/A signifies not available

Engineering Controls

Material should be handled in enclosed vessels and equipment. Use only in adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Eye/Face Protection

Chemical goggles or face shield.

Skin Protection

Chemical resistant, impervious gloves complying with an approved standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

Respiratory Protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

8. Exposure Controls / Personal Protection

General Hygiene Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

9. Physical and Chemical Properties

Appearance	Amber	Vapor Pressure (mm Hg at 20°C)	0
Odor	Bland	Water Soluble	No
Physical State	Liquid	Specific Gravity (g/cc)	.863
Flash Point (°F)	390	Density (lbs/gal)	7.18
Boiling Point (°F)	>625	pH	Not available

10. Chemical Stability & Reactivity Information

Stability Stable under normal conditions
Polymerization No polymerization
Incompatibility Strong acids and oxidizing materials
Conditions to Avoid High temperatures
Hazardous Decomposition Products Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

11. Toxicological Information

Acute Exposure
Respiratory Irritation If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from components or similar materials.
Eye Irritation May cause eye irritation. Vapors formed from heating may cause eye irritation.
Skin Irritation Short term skin contact is not expected to cause skin irritation. Prolonged or repeated direct exposure to the skin may result in symptoms of irritation and redness.
Sensitization Not expected to cause skin or respiratory sensitization.

Component Analysis – LD50 / LC50

Acute Toxicity Estimate Values for Product:

Inhalation LC50 Rat	May cause dizziness and headaches	mg/L 4 h
Oral LD50 Rat		>5000 mg/kg
Dermal LD50 Rabbit		>4000 mg/kg

Chronic Exposure

Target Organ Effects

In a 28-day oral toxicity study in rats, 2,6-Di-tert-butylphenol showed an increase in liver weight with corresponding histopathology at 600 mg/kg-bw/day; a NOAEL of 100 mg/kg-bw/day was established for systemic toxicity.

Carcinogenicity

This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

Mutagenicity

No data available to indicate product or any components present at greater than .1% are mutagenic or genotoxic.

Reproductive Toxicity

No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.

Teratogenicity

No data available to indicate product or any components contained at greater than .1% may cause birth defects.

12. Ecological Information

Component Analysis- Ecotoxicity – Aquatic Life

Duration/Test/Species

96 Hr LC50

Pimephales promelas

Concentration/Conditions

N/A mg/L

Degradability

Not readily degradable

Bioaccumulation

Not determined

Soil Mobility

Not determined

13. Disposal Considerations

Disposal Instructions

The generation of waste should be avoided or minimized wherever possible. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14. Transportation Information

Emergency Response Guide No.

*North American Emergency Response
Guide Book*

**U.S. DOT
Bulk**

UN Number

Shipping Name (technical name)

Not Regulated

Hazard Class

Packing Group

U.S. DOT

Not Regulated

14. Transportation Information

Non-Bulk U.S. DOT Intermediate	Not Regulated
Canada	Not Regulated
Mexico	Not Regulated
Bulk	Not Regulated
Quantity Non-Bulk	Not Regulated
Quantity Intermediate	Not Regulated
Quantity	

15. Regulatory Information

SARA Extremely Hazardous Substances (Sections 302 & 304)	This product does not contain greater than 1% of any “extremely hazardous substances” listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.								
SARA Section 313	This product contains NONE of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.								
SARA Section 311 & 312 Classifications	<table border="0"> <tr> <td>Acute Hazard</td> <td>Yes</td> </tr> <tr> <td>Chronic Hazard</td> <td>Yes</td> </tr> <tr> <td>Fire Hazard</td> <td>No</td> </tr> <tr> <td>Reactivity Hazard</td> <td>No</td> </tr> </table>	Acute Hazard	Yes	Chronic Hazard	Yes	Fire Hazard	No	Reactivity Hazard	No
Acute Hazard	Yes								
Chronic Hazard	Yes								
Fire Hazard	No								
Reactivity Hazard	No								
CERCLA	This product does not contain any “hazardous substances” listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.								
California Prop 65	This product contains the following chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components: 10 ppm ethyl acrylate, .003 ppm cadmium, and .006 ppm lead.								
Clean Water Act / Oil Pollution Act	This product contains mineral oil and is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.								

Global Chemical Inventories

Inventory	Component
	All components
US TSCA	Present
EU	Present
Japan	Present

Australia	Present
New Zealand	Not available
Canada	Present
Switzerland	Not available
Korea	Present
Philippines	Present
China	Present
Taiwan	Not available

16. Other Information

US NFPA Ratings

Health	Fire	Reactivity
1	1	0

HMIS Ratings

Health	Fire	Physical Hazards
1	1	0

Precautionary Labels

Signal Word

WARNING!

Harmful if swallowed. Can enter lungs and cause damage
Prolonged or repeated contact may dry skin and cause irritation
May cause eye irritation
May cause respiratory tract irritation

Preparation/Revision Date

11/23/2011

Revision Reason

Outdated

Prepared By:

Jenna Prechtel, Product Compliance Coordinator

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of MSDS