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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name: **MFA OIL ROCK DRILL OIL**

Product Code: **ISO 100 WINTER** FA1WRD55, HYD00049
ISO 220 SUMMER FA2SRD55

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Hydraulic Oil

Recommended restrictions: Not applicable

1.3. Details of the supplier of the safety data sheet

Manufacturer: MFA Oil Company
One Ray Young Drive
Columbia, MO 65201

Information Phone: (800) 827-0116

E-mail: sds@wd-wpp.com

1.4. Emergency telephone number

Emergency phone number: CHEMTREC: +1 (800) 424-9300
International: +01 (703) 527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified under GHS

2.2. Label elements

2.3. Other hazards

Hazards not otherwise classified: Avoid prolonged or repeated skin contact with used fluid.

Unknown acute toxicity (GHS-US)

SECTION 3: Composition/information on ingredients

Chemical Name	%	CAS #	GHS Classification
Residual oils (petroleum), solvent dewaxed	30 - 60	64742-62-7	Acute Tox. 4; H332 Acute Tox. 3; H331
Petroleum distillates, hydrotreated heavy paraffinic	30 - 60	64742-54-7	Acute Tox. 4; H332 Acute Tox. 3; H331

Components not listed are not physical or health hazards as defined in 29 CFR 1910.1200 (Hazard Communication Standard).

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen.

Eyes None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.

Skin Contact Wash with soap and water. Get medical attention if irritation develops or persists. Seek medical advice if symptoms persist.

Ingestion Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

4.2. Most important symptoms and effects, both acute and delayed

SECTION 4: First aid measures

Symptoms Not determined

4.3. Indication of any immediate medical attention and special treatment needed

Note to Doctor Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable and Unsuitable Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do not direct a stream of water into the hot burning liquid.

5.2. Special hazards arising from the substance or mixture

Fire and/or Explosion Hazards Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire.

5.3. Advice for firefighters

Fire Fighting Methods and Protection Do not enter fire area without proper protection including self- contained breathing apparatus and full protective equipment.Use methods for the surrounding fire.

Hazardous Combustion Products Carbon dioxide, Carbon monoxide

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General Measures: No health affects expected from the clean up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this SDS.

6.2. Environmental precautions

Do not flush to sewer.

Avoid runoff into storm sewers and ditches that lead to waterways.

Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.

6.4. Reference to other sections

Follow all protective equipment recommendations provided in Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Mildly irritating material. Avoid unnecessary exposure.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool dry place. Isolate from incompatible materials.

Incompatible materials

See Section 10.

7.3. Specific end use(s)

Hydraulic Oil

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Occupational Exposure Limits	Value
Oil mist, mineral	OSHA PEL	5 mg/m3
Oil mist, mineral	ACGIH TLV-TWA	5 mg/m3
Oil mist, mineral	ACGIH STEL	10 mg/m3
None.	IDLH	
None.	OSHA PEL-Skin Notation	

8.2. Exposure controls

Engineering Measures	Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.
Respiratory Protection	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.
Respirator Type(s)	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.
Eye Protection	No special requirements under normal industrial use.
Skin Protection	Where use can result in skin contact, practice good personal hygiene and wear impervious gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves	Neoprene, Nitrile

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Liquid
Color	Brown
Odor	Mild
Odor threshold	Not determined
pH	Not determined
Freezing point	Not determined
Boiling Point	Not determined
Flash Point	215
Flash Point Method	COC
Evaporation Rate	Not determined
Upper Flammable/Explosive Limit, % in air	= 10
Lower Flammable/Explosive Limit, % in air	= 1
Flammability (solid, gas)	Not applicable
Vapor pressure	<0.20
Vapor Density	Not determined
Relative Density	0.88
Solubility in Water	Negligible; 0-1%
Octanol/Water Partition Coefficient	Not determined
Autoignition Temperature	Not determined
Decomposition Temperature	Not determined
Viscosity(°C)	102.5

9.2. Other information

Volatiles, % by weight	0.000000

SECTION 10: Stability and reactivity

10.1. Reactivity	No data available.
10.2. Chemical stability	Stable under normal conditions.
10.3. Possibility of hazardous reactions	Hazardous polymerization will not occur.
10.4. Conditions to avoid	Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.Moisture (will lead to product performance degradation).
10.5. Incompatible materials	Strong oxidizing agents
10.6. Hazardous decomposition products	Carbon dioxide, Carbon monoxide

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Ingestion Toxicity	No hazard in normal industrial use.Estimated to be 5.0 g/kg.
Skin Contact	Likely to be non-irritating to skin based on animal data.Can cause minor skin irritation, defatting, and dermatitis.
Absorption	Likely to be practically non-toxic based on animal data.
Inhalation Toxicity	No hazard in normal industrial use. Likely to be practically non-toxic based on animal data.
Eye Contact	This material is likely to be non-irritating to eyes based on animal data. No hazard in normal industrial use.
Sensitization	Non-hazardous under Respiratory Sensitization category.No data available to indicate product or components may be a skin sensitizer.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
Carcinogenicity	Not expected to cause cancer. This product meets the IP-346 criteria of <3% PAH's and is not considered a carcinogen by the International Agency for Research on Cancer.
Reproductive and Developmental Toxicity	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Specific target organ toxicity-Single exposure	Non-hazardous under Specific Target Organ Systemic Toxicity Single Exposure category.
Specific target organ toxicity-Repeated exposure	Non-hazardous under Specific Target Organ Systemic Toxicity Repeated Exposure category.
Aspiration toxicity	Non-hazardous under Aspiration category.
Other information	No data available.

Agents Classified by IARC Monographs

Benzene	IARC Group 1
Not applicable	IARC Group 2A
Cumene	IARC Group 2B
ethylbenzene	IARC Group 2B

National Toxicity Program (NTP) Status

Benzene	Known Human Carcinogen
Cumene	Reasonably Anticipated To Be A Human Carcinogen

SECTION 12: Ecological information

12.1. Toxicity

Acute Aquatic ecotoxicity: Non-hazardous under Aquatic Acute Environment category.

Chronic Aquatic ecotoxicity: Non-hazardous under Aquatic Chronic Environment category.

12.2. Persistence and degradability

Biodegrades slowly.

12.3. Bioaccumulative potential

Bioconcentration may occur.

12.4. Mobility in soil

This material is expected to have essentially no mobility in soil. It absorbs strongly to most soil types.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

Not determined

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Methods

Dispose of according to Federal, State, Local, or Provincial regulations. Recycle used oil.

Waste Disposal Code(s)

Waste Description for Spent Product

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SECTION 13: Disposal considerations

Spent or discarded material is non-hazardous according to environmental regulations.

Contaminated packaging:

Recycle containers whenever possible.

Recycle containers whenever possible.
Recycle containers whenever possible.

SECTION 14: Transport information

DOT Basic Description Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO).

SECTION 15: Regulatory information

Chemical Inventories

TSCA Status All components of this material are on the US TSCA Inventory or are exempt.

U.S. State Restrictions: Not applicable

WHMIS: Uncontrolled product according to WHMIS classification criteria.

Chemical Name	Regulation	CAS #	%
None.	CERCLA		
1,2,4-Trimethylbenzene	SARA 313	95-63-6	0.001- 0.01
Xylene (mixed isomers)	SARA 313	1330-20-7	0.001- 0.01
Toluene	SARA 313	108-88-3	0.001- 0.01
Cumene	SARA 313	98-82-8	0.001- 0.01
ethylbenzene	SARA 313	100-41-4	0.001- 0.01
Benzene	SARA 313	71-43-2	<10ppm
None.	SARA EHS		
None.	TSCA 12b		

U.S. State Regulations

Chemical Name	Regulation	CAS #	%
Cumene	California Prop 65- Cancer	98-82-8	0.001- 0.01
ethylbenzene	California Prop 65- Cancer	100-41-4	0.001- 0.01
Benzene	California Prop 65- Cancer	71-43-2	<10ppm
Toluene	California Prop 65- Dev. Toxicity	108-88-3	0.001- 0.01
Benzene	California Prop 65- Dev. Toxicity	71-43-2	<10ppm
None.	California Prop 65- Reprod -fem		
Benzene	California Prop 65- Reprod-male	71-43-2	<10ppm
None.	Massachusetts RTK List		
None.	New Jersey RTK List		
None.	Pennsylvania RTK List		
None.	Rhode Island RTK List		
None.	Minnesota Hazardous Substance List		

HMIS Ratings:		NFPA Ratings:	
Health:	1	Health:	1
Fire:	1	Fire:	1
Reactivity:	0	Reactivity:	0

PPE: B

KEY: 0 - Least 1 - Slight 2 - Moderate 3 - High 4 – Extreme

SECTION 16: Other information

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References ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
CFR: Code of Federal Regulations
DOT: United States Department of Transportation
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
IATA: International Air Transportation Association
IDLH: Immediately Dangerous to Life or Health
IMDG: International Maritime Dangerous Goods
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
RTK: Right-to-Know
SARA: Superfund Amendments and Reauthorization Act
STEL: Short-term Exposure Limit
TLV: Threshold limit value
TSCA: Toxic Substances Control Act
TWA: Time weighted average
UN: United Nations
WHMIS: Workplace Hazardous Materials Information System

Disclaimer This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.