

MATERIAL SAFETY DATA SHEET

Product Trade Name: EP MUDLUBE®

Revision Date: 17-Feb-2015

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: EP MUDLUBE®
Synonyms: None
Chemical Family: Organic hydrocarbon
Application: Lubricant

Manufacturer/Supplier Baroid Fluid Services
Product Service Line of Halliburton
P.O. Box 1675
Houston, TX 77251
Telephone: (281) 871-4000
Emergency Telephone: (281) 575-5000

Prepared By Chemical Stewardship
Telephone: 1-580-251-4335
e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	ACGIH TLV-TWA	OSHA PEL-TWA
Hydrotreated light petroleum distillate	64742-47-8	10 - 30%	Not applicable	Not applicable

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May be harmful if swallowed.
Combustible

4. FIRST AID MEASURES

Inhalation If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Wash with soap and water. Get medical attention if irritation persists. Remove contaminated clothing and launder before reuse.

Eyes In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Ingestion Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration.

Notes to Physician Not Applicable

5. FIRE FIGHTING MEASURES

Flash Point/Range (F):	146
Flash Point/Range (C):	63
Flash Point Method:	PMCC
Autoignition Temperature (F):	Not Determined
Autoignition Temperature (C):	Not Determined
Flammability Limits in Air - Lower (%):	Not Determined
Flammability Limits in Air - Upper (%):	Not Determined

Fire Extinguishing Media	Carbon Dioxide, Dry Chemicals, Foam.
Special Exposure Hazards	Use water spray to cool fire exposed surfaces. Decomposition in fire may produce toxic gases.
Special Protective Equipment for Fire-Fighters	Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.
NFPA Ratings:	Health 1, Flammability 2, Reactivity 0
HMIS Ratings:	Health 1, Flammability 2, Reactivity 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures	Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas.
Environmental Precautionary Measures	Prevent from entering sewers, waterways, or low areas.
Procedure for Cleaning / Absorption	Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Contain spill with sand or other inert materials. Scoop up and remove.

7. HANDLING AND STORAGE

Handling Precautions	Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Launder contaminated clothing before reuse. Wash hands after use. Do not open storage containers or enter confined spaces without adequate ventilation and respiratory protection due to hydrogen sulfide accumulation.
Storage Information	Store away from oxidizers. Store in a cool well ventilated area. Keep from heat, sparks, and open flames. Keep container closed when not in use. Product has a shelf life of 36 months.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.
Personal Protective Equipment	If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection	Not normally needed. But if significant exposures are possible then the following respirator is recommended: Organic vapor respirator.
Hand Protection	Impervious rubber gloves.
Skin Protection	Rubber apron.
Eye Protection	Chemical goggles; also wear a face shield if splashing hazard exists.
Other Precautions	Eyewash fountains and safety showers must be easily accessible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Color:	Brown-black
Odor:	Acrid
pH:	4.5
Specific Gravity @ 20 C (Water=1):	0.94
Density @ 20 C (lbs./gallon):	7.8
Bulk Density @ 20 C (lbs/ft3):	Not Determined
Boiling Point/Range (F):	302
Boiling Point/Range (C):	150
Freezing Point/Range (F):	-4
Freezing Point/Range (C):	-20
Vapor Pressure @ 20 C (mmHg):	Not Determined
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	Not Determined
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Insoluble
Solubility in Solvents (g/100ml):	Not Determined
VOCs (lbs./gallon):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	500-1000
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined

10. STABILITY AND REACTIVITY

Stability Data:	Stable
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid	None anticipated
Incompatibility (Materials to Avoid)	Strong oxidizers.
Hazardous Decomposition Products	Oxides of sulfur. Carbon monoxide and carbon dioxide.
Additional Guidelines	Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure	Eye or skin contact, inhalation.
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Symptoms related to exposure

Acute Toxicity

Inhalation

May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact

May cause eye irritation.

Skin Contact

May cause skin defatting with prolonged exposure. Can dry skin.

Ingestion

Irritation of the mouth, throat, and stomach. Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

Chronic Effects/Carcinogenicity

No data available to indicate product or components present at greater than 1% are chronic health hazards.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrotreated light petroleum distillate	64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	5.28 mg/L (Rat) 4h

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Ecotoxicity Product

Acute Fish Toxicity: TLM48: 181 mg/l (Arcatia tonsa)

Acute Crustaceans Toxicity: TLM96: 31900 ppm (Mysidopsis bahia) SPP @ 2 ppb

Acute Algae Toxicity: E(B)C50: 491 mg/l (Skeletonema costatum)

Ecotoxicity Substance

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Hydrotreated light petroleum distillate	64742-47-8	EC50 (72h) > 1,000 mg/L (Skeletonema costatum)	LC50 (96h) > 10,000 mg/L (Scophthalmus maximus) LL50 (96h) 2-5 mg/L (Oncorhynchus mykiss)	No information available	LC50 (48h) > 10,000 mg/L (Acartia tonsa) EC50 (48h) 1100 mg/L (Daphnia pulex)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Hydrotreated light petroleum distillate	64742-47-8	(87% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Hydrotreated light petroleum distillate	64742-47-8	7.5

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

No information available.

Substances	PBT and vPvB assessment
Hydrotreated light petroleum distillate	Not PBT/vPvB

12.6. Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Disposal Method	Disposal should be made in accordance with federal, state, and local regulations.
Contaminated Packaging	Follow all applicable national or local regulations.

14. TRANSPORT INFORMATION

US DOT

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable

US DOT Bulk

DOT (Bulk)	NA1993, Combustible Liquid, N.O.S., Combustible Liquid, III (Contains Petroleum Distillates)
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Canadian TDG ul0

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable

IMDG/IMO

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable

IATA/ICAO

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Special Precautions for User: None

15. REGULATORY INFORMATION

US Regulations

US TSCA Inventory	All components listed on inventory or are exempt.
EPA SARA Title III Extremely Hazardous Substances	Not applicable
EPA SARA (311,312) Hazard Class	Acute Health Hazard Fire Hazard
EPA SARA (313) Chemicals	This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).

EPA CERCLA/Superfund Reportable Spill Quantity	Not applicable.
EPA RCRA Hazardous Waste Classification	If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
California Proposition 65	All components listed do not apply to the California Proposition 65 Regulation.
MA Right-to-Know Law	Does not apply.
NJ Right-to-Know Law	Does not apply.
PA Right-to-Know Law	Does not apply.

Canadian Regulations

Canadian DSL Inventory	Product contains one or more components not listed on the inventory.
WHMIS Hazard Class	B3 Combustible Liquids D2B Toxic Materials

16. OTHER INFORMATION

The following sections have been revised since the last issue of this SDS

Not applicable

Additional information For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Stewardship at 1-580-251-4335.

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*****END OF MSDS*****