

MATERIAL SAFETY DATA SHEET

Product Trade Name: **PERFOR MUL**

Revision Date: 15-May-2014

Revision Number: 7

1. Product and Company Identification

Product Identifier

Product Trade Name: PERFOR MUL
Synonyms: None
Chemical Family: Organic acid
Internal ID Code HM006902

Product Use

Application: Emulsifier

Manufacturer's Name and Contact Details

Name and Address Halliburton Energy Services
645 - 7th Ave SW Suite 2200
Calgary, AB
T2P 4G8
Canada

Emergency Telephone Number (281) 575-5000

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

2. Hazard(s) Identification

WHMIS Classification

WHMIS Hazard Class D2B Toxic Materials

WHMIS Symbol(s)



Summary of hazards of the product

Hazard Overview May cause eye, skin, and respiratory irritation.

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	HMIRA Registry Number	Filing Date
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyl]o-	57635-48-0	60 - 100%	Not applicable	Not applicable

4. First aid measures

Description of 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.

Eyes

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin

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

Ingestion

Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

May cause severe eye irritation. May cause skin irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically

5. Fire Fighting Measures

Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Special hazards arising from the substance or mixture

Special Exposure Hazards

Use water spray to cool fire exposed surfaces. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways.

Advice for firefighters

Special Protective Equipment for Fire-Fighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

Hazardous combustion products

Toxic fumes. Carbon monoxide and carbon dioxide.

6. Accidental release measures

Personal precautions and emergency procedures

Protective Equipment

Use appropriate protective equipment.

Environmental Precautionary Measures

Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning / Absorption

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. Handling and Storage

Precautions for safe handling

Avoid contact with eyes, skin, or clothing. Wash hands after use. Launder contaminated clothing before reuse.

Conditions for safe storage and Incompatible materials for storage

Store away from oxidizers. Store away from alkalis. Store in a cool, dry location. Keep container closed when not in use.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits

Exposure Limits

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-oct adecenyl-oxy]-	57635-48-0	Not applicable	Not applicable

Appropriate engineering controls

Engineering Controls

Use in a well ventilated area.

Personal Protective Equipment (PPE)

Respiratory Protection

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.
Not normally needed. But if significant exposures are possible then the following respirator is recommended:
Organic vapor respirator.

Hand Protection

Impervious rubber gloves. Use Viton or 4H 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

Information on basic physical and chemical properties

Physical State: Liquid
Odor: Characteristic

Color: Brown
Odor Threshold: No information available

Property

Remarks/ - Method

pH:

pH Concentration of Solution:

Freezing Point/Range

Melting Point/Range

Boiling Point/Range (C):

Flash Point/Range (C):

Flash Point Method:

Autoignition Temperature (C):

Flammability Limits in Air - Lower (%):

Flammability Limits in Air - Upper (%):

Evaporation Rate (Butyl Acetate=1):

Vapor Pressure @ 20 C (mmHg):

Vapor Density (Air=1):

Specific Gravity @ 20 C (Water=1):

Solubility in Water (g/100ml):

Solubility in other solvents

Partition Coefficient/n-Octanol/Water:

Values

2 - 3

No information available.

No information available.

No information available

118

> 100 °C

No information available.

No information available.

No information available.

No information available.

No information available.

No information available.

No information available.

1.00

Soluble

No information available.

No information available.

Decomposition Temperature (C):	No information available.
Viscosity	No information available
Explosive Properties	No information available
Oxidizing Properties	No information available
Other Information	
Molecular Weight (g/mole):	No information available.
VOC Content (%)	No information available

10. Stability and Reactivity

Conditions of Reactivity

Conditions to Avoid	None anticipated
Hazardous Polymerization:	Will Not Occur

Chemical Stability

Stable

Sensitivity to Static Discharge

Not available

Sensitivity to Mechanical Impact

Not available

Incompatible materials

Strong oxidizers. Strong alkalis.

Hazardous Decomposition Products

Toxic fumes. Carbon monoxide and carbon dioxide.

11. Toxicological Information

Routes of entry

Eye or skin contact, inhalation.

Information on Toxicological Effects

Acute effects from exposure

Inhalation	Causes moderate respiratory irritation.
Eye Contact	Causes moderate eye irritation. May cause eye burns.
Skin Contact	Causes moderate skin irritation.
Ingestion	Irritation of the mouth, throat, and stomach.

Chronic effects from exposure

Chronic Effects/Carcinogenicity

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

Irritancy of product

Irritation

Causes moderate eye irritation Irritating to skin

Sensitization of product

Sensitization

Not confirmed to cause skin or respiratory sensitization.

Mutagenicity

Mutagenic Effects

Not regarded as mutagenic.

Carcinogenicity

Carcinogenic Effects

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA.

Reproductive toxicity

Reproductive Toxicity This product does not contain any known or suspected reproductive hazards

Teratogenicity/embryotoxicity

Teratogenic Not a confirmed teratogen or embryotoxin.

Toxicologically synergistic material Not available

Acute Toxicity

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyl]-	57635-48-0	No data available	No data available	No data available

12. Ecological Information

Toxicity**Ecotoxicity Effects**

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Poly(oxy-1,2-ethanediyl), a-(carboxymethyl)-w-[(9Z)-9-octadecenyl]-	57635-48-0	No information available	No information available	No information available	No information available

Persistence and Degradability

No information available

Bioaccumulation potential

No information available

Mobility in soil

No information available

Results of PBT and vPvB assessment

No information available.

Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

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

Canadian TDG ul0

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

IMDG/IMO

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

Special Precautions for User None

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canadian Regulations

Canadian DSL Inventory Product contains one or more components not listed on the inventory.

WHMIS Hazard Class D2B Toxic Materials

WHMIS Symbol(s)

**US Regulations**

US TSCA Inventory All components listed on inventory or are exempt.

16. Other Information

Preparation Information

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

Revision Date: 15-May-2014

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 Compliance at 1-580-251-4335.

Key or legend to abbreviations and acronyms

WHMIS: Workplace Hazardous Materials Information System

Key literature references and sources for data

www.ChemADVISOR.com/

Disclaimer Statement

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