

MATERIAL SAFETY DATA SHEET

Product Trade Name: EZ-MUD®

Revision Date: 28-Jul-2014

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Statement of Hazardous Nature Hazardous according to the criteria of NOHSC, Non-Dangerous Goods according to the criteria of ADG.

Manufacturer/Supplier Halliburton/Baroid Australia Pty. Ltd.
15 Marriott Road
Jandakot
WA 6164
Australia

ACN Number: 009 000 775
Telephone Number: 61 (08) 9455 8300
Fax Number: 61 (08) 9455 5300

Product Emergency Telephone

Australia: 08-64244950
Papua New Guinea: 05 1 281 575 5000
New Zealand: 06-7559274

Fire, Police & Ambulance - Emergency Telephone

Australia: 000
Papua New Guinea: 000
New Zealand: 111

Identification of Substance or Preparation

Product Trade Name: EZ-MUD®
Synonyms: None
Chemical Family: Blend
Dangerous Goods Class: None
Subsidiary Risk: None
Hazchem Code: None
Poisons Schedule: None
Application: Shale Inhibitor

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

3. HAZARDS IDENTIFICATION

Statement of Hazardous Nature Hazardous according to the criteria of NOHSC, Non-Dangerous Goods according to the criteria of ADG.

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

Classification Xi - Irritant.

Risk Phrases R36 Irritating to eyes.
R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases S24/25 Avoid contact with skin and eyes.

HSNO Classification 6.3B Mildly irritating to the skin
6.4A Irritating to the eye
6.9B Harmful to human target organs or systems
9.1B Ecotoxic in the aquatic environment

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	CAS Number	Percent	Australia NOHSC New Zealand		ACGIH TLV-TWA
			WES	WES	
Hydrotreated light petroleum distillate	64742-47-8	10 - 30%	Not determined	Not determined	Not applicable
Alcohols, C10-16, ethoxylated	68002-97-1	1 - 5%	Not determined	Not determined	Not applicable

Non-hazardous Substance to Total of 100%

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 shoes and discard.

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

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media

None known

Special Exposure Hazards

Decomposition in fire may produce toxic gases. Use water spray to cool fire exposed surfaces.

Special Protective Equipment for Fire-Fighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures	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

Handling Precautions	Avoid contact with eyes, skin, or clothing. Avoid breathing vapours. Wash hands after use. Launder contaminated clothing before reuse.
Storage Information	Store away from oxidisers. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	A well ventilated area to control dust levels. 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	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. Organic vapour respirator with a dust/mist filter. In high concentrations, supplied air respirator or a self-contained breathing apparatus.
Hand Protection	Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Nbr nitrile gloves. (>= 0.35 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.
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
Colour:	White to grey
Odour:	Mild hydrocarbon

pH:	6-8
Specific Gravity @ 20 C (Water=1):	1.0
Density @ 20 C (kg/l):	1
Bulk Density @ 20 C (kg/l):	Not Determined
Boiling Point/Range (C):	175
Freezing Point/Range (C):	Not Determined
Pour Point/Range (C):	Not Determined
Flash Point/Range (C):	Not Determined
Flash Point Method:	PMCC
Autoignition Temperature (C):	> 200
Flammability Limits in Air - Lower (g/m ³):	Not Determined
Flammability Limits in Air - Lower (%):	Not Determined
Flammability Limits in Air - Upper (g/m ³):	Not Determined
Flammability Limits in Air - Upper (%):	Not Determined
Vapour Pressure @ 20 C (mmHg):	0.002
Vapour Density (Air=1):	Not Determined
Percent Volatiles:	70
Evaporation Rate (Butyl Acetate = 1):	< 1
Solubility in Water (g/100ml):	Partially soluble
Solubility in Solvents (g/100ml):	Not Determined
VOCs (g/l):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined
Decomposition Temperature (C):	Not Determined

10. STABILITY AND REACTIVITY

Stability Data:	Stable
Hazardous Polymerisation:	Will Not Occur
Conditions to Avoid	Keep away from heat, sparks and flame.
Incompatibility (Materials to Avoid)	Strong oxidisers.
Hazardous Decomposition Products	Ammonia. Oxides of nitrogen. Carbon monoxide and carbon dioxide.
Additional Guidelines	Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure Eye or skin contact, inhalation.

Symptoms related to exposure

Acute Toxicity

Inhalation

May cause mild 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 mild skin irritation.

Ingestion

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal. May cause central nervous system depression including headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue blurred vision, slurred speech, giddiness, tremors and convulsions.

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

Substance	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
Alcohols, C10-16, ethoxylated	68002-97-1	600 mg/kg (Rat) (similar substances)	> 5200 mg/kg (Rabbit) (similar substances)	No toxicity at saturation (similar substances)

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Ecotoxicity Product

Acute Fish Toxicity: TLM96: >1000 mg/l (Pimephales promelas)

Acute Crustaceans Toxicity: TLM48: 98 mg/l (Acartia tonsa)

Acute Algae Toxicity: EC50: 16.70 mg/l (Skeletonema costatum)

Ecotoxicity Substance

Substance	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Hydrotreated light petroleum distillate	64742-47-8	EC50(72h): > 10,000 mg/L (Skeletonema costatum) (ISO 10253)	LC50(96h): > 10,000 mg/L (Scophthalmus maximus) (OSPARCOM 1995)	No information available	LC50(48h): > 10,000 mg/L (Acartia tonsa) (ISO 14669) EC50(48h): 1100 mg/L (mobility) (Daphnia pulex)
Alcohols, C10-16, ethoxylated	68002-97-1	EC50(48h): 0.7 mg/L (Skeletonema costatum) EC50(72h): 1.1 mg/L (Scenedesmus subspicatus)	LC50(96h): 1.6 mg/L (Pimephales promelas) LC50(96h): 3 mg/L (Brachydanio rerio) LC50(96h): 0.8mg/L (Cyprinus carpio)	No information available	EC50(48h): 0.2 mg/L (Daphnia magna)

12.2. Persistence and degradability

Substance	Persistence and Degradability
Hydrotreated light petroleum distillate	Readily biodegradable (87% @ 28d)
Alcohols, C10-16, ethoxylated	Readily biodegradable (99% @ 28d) (similar substances)

12.3. Bioaccumulative potential

Substance	Log Pow
Hydrotreated light petroleum distillate	7.5
Alcohols, C10-16, ethoxylated	BCF: 12.7 (similar substance)

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

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

Australia Dangerous Goods

ADR UN Number: Not restricted.
Proper Shipping Name: Not restricted
Hazard Class: Not applicable
Packing Group: Not applicable

IMDG/IMO

ADR UN Number: Not restricted.
Proper Shipping Name: Not restricted
Hazard Class: Not applicable
Packing Group: Not applicable
DOT Marine Pollutant: Not applicable

IATA/ICAO

ADR UN Number: Not restricted.
Proper Shipping Name: Not restricted
Hazard Class: 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: Not applicable

15. REGULATORY INFORMATION

Chemical Inventories

Australian AICS Inventory All components listed.
New Zealand Inventory of Chemicals All components listed.
US TSCA Inventory All components listed.
EINECS Inventory All components are listed on the inventory.

Classification Xi - Irritant.

Risk Phrases R36 Irritating to eyes.
R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases S24/25 Avoid contact with skin and eyes.

16. OTHER INFORMATION

The following sections have been revised since the last issue of this MSDS:
Not applicable

Contact

Australian Poisons Information Centre

24 Hour Service: - 13 11 26

Police or Fire Brigade: - 000 (exchange): - 1100

New Zealand National Poisons Centre

0800 764 766

Additional Information

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

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

Disclaimer Statement

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

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