

MATERIAL SAFETY DATA SHEET

Product Trade Name: MUSOL SOLVENT

Revision Date: 07-Sep-2012

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 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 Substances or Preparation

Product Trade Name: MUSOL SOLVENT
Synonyms: None
Chemical Family: Glycol Ether
UN Number: None
Dangerous Goods Class: None
Subsidiary Risk: None
Hazchem Code: 2X
Poisons Schedule: S6
Application: Solvent

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

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT	Australia NOHSC	New Zealand OEL	ACGIH TLV-TWA
Ethylene glycol monobutyl ether	111-76-2	60 - 100%	20 ppm	25 ppm	20 ppm

Non-Hazardous Substance to Total of 100%

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. May be absorbed through the skin. Combustible.
Risk Phrases	R20/21/22 Harmful by inhalation, by contact with skin and if swallowed. R36/38 Irritating to eyes and skin.
HSNO Classification	3.1D Flammable Liquids - Low hazard 6.1D Acutely Toxic Substances 6.3B Substances that are mildly irritating to the skin. 6.4A Substances that are irritating to the eye. 9.3B Substances that are ecotoxic to terrestrial invertebrates.

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	In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.
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.
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.
Notes to Physician	Not Applicable

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Water fog, carbon dioxide, foam, dry chemical.
Extinguishing media which must not be used for safety reasons	None known.
Special Exposure Hazards	May be ignited by heat, sparks or flames. Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. 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.

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. 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. Wash hands after use. Launder contaminated clothing before reuse.

Storage Information

Store away from oxidizers. Keep from heat, sparks, and open flames. Keep container closed when not in use. Product has a shelf life of 60 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.

Respiratory Protection

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:	Colorless
Odor:	Mild
pH:	Not Determined
Specific Gravity @ 20 C (Water=1):	0.9
Density @ 20 C (kg/l):	0.9
Bulk Density @ 20 C (kg/m ³):	Not Determined
Boiling Point/Range (C):	171
Freezing Point/Range (C):	-70
Pour Point/Range (C):	Not Determined
Flash Point/Range (C):	67
Flash Point Method:	DIN 51758
Autoignition Temperature (C):	230
Flammability Limits in Air - Lower (g/m ³):	Not Determined
Flammability Limits in Air - Lower (%):	1.1
Flammability Limits in Air - Upper (g/m ³):	Not Determined
Flammability Limits in Air - Upper (%):	10.6
Vapor Pressure @ 20 C (mmHg):	0.76
Vapor Density (Air=1):	4.1
Percent Volatiles:	100
Evaporation Rate (Butyl Acetate=1):	0.06
Solubility in Water (g/100ml):	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:	0.8
Molecular Weight (g/mole):	118.2
Decomposition Temperature (C):	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. Peroxides. Amphoteric metals such as aluminum, magnesium, lead, tin, or zinc.
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide.
Additional Guidelines	Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure	Eye or skin contact, inhalation.
Inhalation	May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.
Skin Contact	May be absorbed through the skin and contribute to the symptoms listed under ingestion. May cause skin irritation.
Eye Contact	May cause eye irritation.
Ingestion	May cause abdominal pain, vomiting, nausea, and diarrhea. May produce nervous system effects such as feeling of weakness, unsteady walk, and dilation of blood vessels.
Aggravated Medical Conditions	Skin disorders. Eye ailments.
Chronic Effects/Carcinogenicity	Prolonged or repeated exposure may cause fetal damage and testicular effects.
Other Information	None known.
Toxicity Tests	
Oral Toxicity:	LD50: 1480 mg/kg (Rat)
Dermal Toxicity:	LD50: 400-500 mg/kg (Rabbit)
Inhalation Toxicity:	LC50: 2250 mg/l (Rat)
Primary Irritation Effect:	Not determined
Carcinogenicity	Not determined
Genotoxicity:	Not determined
Reproductive / Developmental Toxicity:	Not determined

12. ECOLOGICAL INFORMATION

Mobility (Water/Soil/Air)	Not determined
Persistence/Degradability	Slowly biodegradable

Bio-accumulation Not determined

Ecotoxicological Information

Acute Fish Toxicity: Not determined
Acute Crustaceans Toxicity: EC50: 1875 mg/l (Daphnia magna)
Acute Algae Toxicity: EC50: > 500 mg/l (Scenedesmus subspicatus)

Chemical Fate Information Not determined

Other Information Not applicable

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

Land Transportation

ADR
Not restricted

Air Transportation

ICAO/IATA
Not restricted

Sea Transportation

IMDG
Not restricted

Other Transportation Information

Labels: None

15. REGULATORY INFORMATION

Chemical Inventories

Australian AICS Inventory All components listed on inventory or are exempt.
New Zealand Inventory of Chemicals All components listed on inventory or are exempt.
US TSCA Inventory All components listed on inventory or are exempt.
EINECS Inventory This product, and all its components, complies with EINECS

Classification Xn - Harmful.

Risk Phrases

R20/21/22 Harmful by inhalation, by contact with skin and if swallowed.
R36/38 Irritating to eyes and skin.

Safety Phrases

S2 Keep out of reach of children.

S46 If swallowed, seek medical advice immediately and show this container or label.

S36/37 Wear suitable protective clothing and gloves.

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 Chemical Compliance at 1-580-251-4335.

Disclaimer Statement

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