

## SAFETY DATA SHEET

### MUSOL SOLVENT

Revision Date: 05-Mar-2014

Revision Number: 25

#### 1. Product and Company Identification

##### Product Name

Product Trade Name: MUSOL SOLVENT

##### Other Names

Synonyms: None

Product Code: HM001097

##### Recommended Use

Recommended Use Solvent

Uses Advised Against No information available

##### Company Name, Address and Contact Details

Manufacturer/Supplier Halliburton New Zealand  
1 Paraite Rd,  
Bell Block, New Plymouth  
New Zealand Registration No.: 824207

E-Mail address: fdunexchem@halliburton.com

Emergency Telephone Number +64-6-7559274

New Zealand National Poisons Centre 0800 764 766 (24 hours)

#### 2. Hazard(s) Identification

##### Statement of Hazardous Nature

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulation 2001;  
Not Classified as dangerous good according to NZS 5433:2012, UN, IMDG or IATA

##### Classification

3.1D Flammable Liquids - Low hazard  
6.1D (Oral) Acutely Toxic Substances  
6.1E (Dermal) Acutely Toxic Substances  
6.1D (Inhalation) Acutely Toxic Substances  
6.3B Mildly irritating to the skin  
6.4A Irritating to the eye  
9.3C Harmful to terrestrial vertebrates

##### Hazard and Precautionary Statements

##### Hazard Pictograms

**Signal Word**

Warning

**Hazard Statements**

H227 - Combustible liquid  
 H302 - Harmful if swallowed  
 H313 - May be harmful in contact with skin  
 H332 - Harmful if inhaled  
 H316 - Causes mild skin irritation  
 H319 - Causes serious eye irritation  
 H433 - Harmful to the terrestrial vertebrates.

**Precautionary Statements****Prevention**

P101 - If medical advice is needed, have product container or label at hand  
 P102 - Keep out of reach of children  
 P103 - Read label before use  
 P104 - Read Safety Data Sheet before use  
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear eye protection/face protection

**Response**

P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 P330 - Rinse mouth  
 P331 - Do NOT induce vomiting  
 P304 + P312 - IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell  
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
 P332 + P313 - If skin irritation occurs: Get medical advice/attention  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P337 + P313 - If eye irritation persists: Get medical advice/attention  
 P370 + P378 - In case of fire: Use water spray for extinction

**Storage**

P403 + P235 - Store in a well-ventilated place. Keep cool

**Disposal**

P501 - Dispose of contents/container to an approved incineration plant

**Contains**

Substances	CAS Number	Substance HSNO Classification
Ethylene glycol monobutyl ether	111-76-2	3.1D 6.1D (Oral) 6.1E (Dermal) 6.1D (Inhalation) 6.3B 6.4A 9.3C

**2.3 Other Hazards**

None known

**3. Composition and Information on Ingredients**

Substances	CAS Number	PERCENT (w/w)
Ethylene glycol monobutyl ether	111-76-2	60 - 100%

**4. First-Aid Measures****Requirements for First Aid or Medical Care****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**

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.

**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.

**Workplace Facilities Required**

None

**Relation to Health Effect****Most Important Symptoms/Effects**

May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects.

**Medical Attention and Special Treatment****Notes to Physician**

Treat symptomatically

**5. Fire-fighting measures****Type of Hazard****Flammability Hazard**

Combustible Liquid

**5.1 Extinguishing media****Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

**Extinguishing media which not be used for safety reasons**

None known.

**HAZCHEM Code**

Hazchem Code: 2X

**Special Protective Equipment and Precautions for Fire Fighters****Special Protective Equipment for Fire-Fighters**

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

**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.

**6. Spillage, Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas.

See Section 8 for additional information

**6.2 Environmental precautions**

Prevent from entering sewers, waterways, or low areas.

**6.3 Methods and material for containment and cleaning up**

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

**6.4 Reference to other sections**

See Section 8 and 13 for additional information.

**7. Handling and Storage****7.1 Precautions for Safe Handling****Handling Precautions**

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

**Handling Practices****Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Approved Handlers**

This product does NOT require an approved handler.

**7.2 Conditions for safe storage, including any incompatibilities**

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 60 months.

**Product is incompatible with:**

Class 1 (explosives)  
 Class 2 (flammable gases, aerosols)  
 Class 3.2 (liquid desensitised explosives)  
 Class 4 (readily combustible, self-reactive, solid desensitised explosives, spontaneously combustible, dangerous when wet)  
 Class 5 (oxidisers, organic peroxides)

**Store Site Requirements**

No special controls required

**Packaging**

No special packaging required

**8. Exposure Controls and Personal Protection****Workplace Exposure Standards****Exposure Limits**

Substances	CAS Number	New Zealand WES	ACGIH TLV-TWA
Ethylene glycol monobutyl ether	111-76-2	TWA: 25 ppm TWA: 121 mg/m <sup>3</sup>	TWA: 20 ppm

**Engineering Controls****Engineering Controls**

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

**Personal Protective Equipment (PPE)****Respiratory Protection**

Organic vapor respirator.

**Hand Protection**

Impervious rubber gloves. Nitrile gloves. Neoprene gloves. Butyl rubber gloves. Vinyl 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.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**9. Physical and Chemical Properties**

**9.1 Information on basic physical and chemical properties**

**Physical State:** Liquid  
**Color:** Colorless  
**Odor:** Mild  
**Odor Threshold:** No information available

<u>Property</u> <u>Remarks/ - Method</u>	<u>Values</u>
<b>pH:</b>	No data available
<b>Freezing Point/Range</b>	-70 °C
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	171 °C
<b>Flash Point</b>	67 °C PMCC
<b>upper flammability limit</b>	10.6
<b>lower flammability limit</b>	1.1
<b>Evaporation rate</b>	0.06
<b>Vapor Pressure</b>	0.76 mmHg
<b>Vapor Density</b>	4.1
<b>Specific Gravity</b>	0.9
<b>Water Solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	0.8
<b>Autoignition Temperature</b>	230 °C
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

**9.2 Other information**

**Molecular Weight** 118.2  
**VOC Content (%)** No data available

**10. Stability and Reactivity****10.2 Chemical Stability**

Stable

**10.4 Conditions to Avoid**

None anticipated

**10.5 Incompatible Materials**

Strong oxidizers. Peroxides. Amphoteric metals such as aluminum, magnesium, lead, tin, or zinc.

**Product is incompatible with:**

Class 1 (explosives)  
 Class 2 (flammable gases, aerosols)  
 Class 3.2 (liquid desensitised explosives)  
 Class 4 (readily combustible, self-reactive, solid desensitised explosives, spontaneously combustible, dangerous when wet)  
 Class 5 (oxidisers, organic peroxides)

**10.6 Hazardous Decomposition Products**

Carbon monoxide and carbon dioxide.

**Hazardous Reactions****Hazardous Polymerization:** Will Not Occur**11. Toxicological Information****Health Effect from Likely Routes of Exposure****Acute Toxicity**

<b>Inhalation</b>	May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.
<b>Eye Contact</b>	May cause eye irritation

<b>Skin Contact</b>	May be absorbed through the skin and contribute to the symptoms listed under ingestion. May cause skin irritation.
<b>Ingestion</b>	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.
<b>Chronic Effects/Carcinogenicity</b>	Prolonged or repeated exposure may cause fetal damage and testicular effects.

**Toxicity Data**

<b>LD50 Oral:</b>	470 mg/kg; (rat)
<b>LD50 Dermal:</b>	2270 mg/kg; (rat)
<b>LC50 Inhalation:</b>	450 ppm; (rat); (4-hr)

**Toxicology data for the components**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol monobutyl ether	111-76-2	470 mg/kg (Rat) 1414 mg/kg (Guinea pig) 1746 mg/kg (Rat) 320 mg/kg (Rabbit) 530 mg/kg (Rat) 560 mg/kg (Rat) 3000 mg/kg (Rat) 2400 (Rat)	220 mg/kg (Rabbit) 2270 mg/kg (Rat) 200 mg/kg (Guinea pig) >2000 mg/kg (Rabbit) 841 mg/kg (Rabbit) 435 mg/kg (Rabbit) >2000 mg/kg (Guinea pig) >2000 mg/kg (Rat) 100 mg/kg (Rabbit) 207 mg/kg (Guinea pig) 400-500 mg/kg (Rabbit)	450 ppm (Rat) 4h 2.174 mg/L (Rat) 4h 2.21 mg/L (Rat) 4h 450-486 ppm (Rat) 4h 925 ppm (Rat) 4h >633 ppm (Guinea pig) 1h

**12. Ecological Information****12.1 Toxicity Ecotoxicity Effects****Product Ecotoxicity Data**

No data available

**Substance Ecotoxicity Data**

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Ethylene glycol monobutyl ether	111-76-2	EC50: 839.56 mg/l (Skeletonema costatum) EC50(72h): 911 mg/L (biomass) EC50: > 500 mg/l (Scenedesmus subspicatus) NOEC(72h): 88 mg/L (biomass)(Pseudokirchnerella subcapitata)	LC50: > 1000 mg/l (Scophthalmus maximus juvenile) LC50(96h): 1474 mg/L (Oncorhynchus mykiss) NOEC(21d): > 100mg/L (Danio rerio)	TT/EC3(48h): 463 mg/L (Uronema parduzci) TT/EC3(72h): 73 mg/L (Entosiphon sulcatum) TT/EC3(16h): 700 mg/L (Pseudomonas putida)	EC50: >1000 mg/L (Daphnia magna) EC50 (48h): 1800 mg/L (Daphnia magna) EC50: 1875 mg/l (Daphnia magna) NOEC(21d)(reproduction): 100 mg/L (Daphnia magna)

**12.2 Persistence and degradability**

Readily biodegradable

**12.3 Bioaccumulative potential**

Does not bioaccumulate

Substances	Log Pow
Ethylene glycol monobutyl ether	0.81

**12.4 Mobility in soil**

No information available

**Ecotoxicity Hazard Statements**

Harmful to terrestrial vertebrates.

**12.6 Other adverse effects****Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

<b>13. Disposal Considerations</b>
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**13.1 Waste treatment methods****Disposal Method**

Disposal should be made in accordance with federal, state, and local regulations. Incineration recommended in approved incinerator according to federal, state, and local regulations. Substance should NOT be deposited into a sewage facility.

**Contaminated Packaging**

Follow all applicable national or local regulations. Contaminated packaging may be disposed of by: rendering packaging incapable of containing any substance, or treating packaging to remove residual contents, or treating packaging to make sure the residual contents are no longer hazardous, or by disposing of packaging into commercial waste collection.

<b>14. Transport Information</b>
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**IMDG/IMO**

<b>UN Number:</b>	Not restricted.
<b>UN Proper Shipping Name:</b>	Not restricted
<b>Transport Hazard Class(es):</b>	Not applicable

**NZ 5433.1999**

<b>UN Number:</b>	Not restricted.
<b>UN Proper Shipping Name:</b>	Not restricted
<b>Transport Hazard Class(es):</b>	Not applicable

**IATA/ICAO**

<b>UN Number:</b>	Not restricted.
<b>UN Proper Shipping Name:</b>	Not restricted
<b>Transport Hazard Class(es):</b>	Not applicable

**Special Precautions for User**

None

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

Not applicable

<b>15. Regulatory Information</b>
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**New Zealand Inventory of Chemicals**

All components listed on inventory or are exempt.

**HSNO Approval Number**

HSR001154

**Group Name**

Not Applicable

**HSNO Controls**Refer to the NZ EPA website for more information: <http://www.epa.govt.nz>**Approved Handlers**

Not Applicable

**Poisons Schedule:**

S6

<b>16. Other information, including date of preparation or last revision</b>
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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 Compliance at 1-580-251-4335.

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)  
NZ CCID

**Revision Date:** 05-Mar-2014

**Revision Note**

Not applicable

**Disclaimer Statement**

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**End of Safety Data Sheet**