

SAFETY DATA SHEET

BARAKLEAN® DUAL

Revision Date: 04-Jun-2015

Revision Number: 28

1. Product and Company Identification

Product Name

Product Trade Name: BARAKLEAN® DUAL

Other Names

Synonyms: None

Product Code: HM006480

Recommended Use

Recommended Use Solvent; Cleaning Solution

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
6.1E (Oral) Acutely Toxic Substances
6.1E (Dermal) Acutely Toxic Substances
6.1D (Inhalation) Acutely Toxic Substances
6.3A Irritating to the skin
8.3A Corrosive to ocular tissue
9.3C Harmful to terrestrial vertebrates

Hazard and Precautionary Statements

Hazard Pictograms

**Signal Word**

Danger

Hazard Statements

H227 - Combustible liquid
 H303 - May be harmful if swallowed
 H313 - May be harmful in contact with skin
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H332 - Harmful if inhaled
 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
 P271 - Use only outdoors or in a well-ventilated area
 P273 - Avoid release to the environment
 P280 - Wear protective gloves/eye protection/face protection

Response

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P332 + P313 - If skin irritation occurs: Get medical advice/attention
 P362 - Take off contaminated clothing and wash before reuse
 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
 P331 - Do NOT induce vomiting
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P310 - Immediately call a POISON CENTER or doctor/physician
 P370 + P378 - In case of fire: Use water spray for extinction

Storage

None

Disposal

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

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
Alcohols, C9-11, ethoxylated	68439-46-3	6.1D (oral) 6.3A 8.3A 9.1D

9.3C

2.3. Other Hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

3. Composition and Information on Ingredients

Substances	CAS Number	PERCENT (w/w)
Ethylene glycol monobutyl ether	111-76-2	30 - 60%
Alcohols, C9-11, ethoxylated	68439-46-3	10 - 30%

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

If inhaled, move victim to fresh air and seek medical attention.

Eyes

In case of contact, immediately flush eyes with plenty of water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Seek immediate medical attention/advice. Suitable emergency eye wash facility should be immediately available

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. Give nothing by mouth. Obtain immediate medical attention.

Workplace Facilities Required

None

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

Harmful if inhaled. Causes serious eye damage. Causes skin irritation.

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 must not be used for safety reasons

None known.

HAZCHEM Code**Hazchem Code:**

None Allocated

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

Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce harmful gases. Fight fire from a safe distance and from a protected location.

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. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation. Evacuate all persons from the area.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas. Consult local authorities.

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. Ensure adequate ventilation. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

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 in a cool well ventilated area. Store away from oxidizers. Keep from heat, sparks, and open flames. Keep container closed when not in use. Product has a shelf life of 24 months.

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 ³	TWA: 20 ppm Skin
Alcohols, C9-11, ethoxylated	68439-46-3	Not applicable	Not applicable

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)

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. When the potential exists for heated vapors or fumes of this product to be created, use a respirator with an organic-vapor filter or a supplied-air respirator as needed for adequate protection.

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): Butyl rubber gloves. (>= 0.7 mm thickness)
This information is based on literature references and on information provided by glove

Skin Protection
Eye Protection
Other Precautions
Hygiene Measures

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.

Rubber apron.

Chemical goggles; also wear a face shield if splashing hazard exists.

Eyewash fountains and safety showers must be easily accessible. Rubber boots

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: Clear
Odor: Characteristic
Odor Threshold: No information available

<u>Property</u>	<u>Values</u>
<u>Remarks/ - Method</u>	
pH:	4 (10% Solution)
Freezing Point/Range	-70 °C
Melting Point/Range	No data available
Boiling Point/Range	168 - 173 °C / 334.4 - 343.4 °F
Flash Point	68 °C / 154 °F Closed cup
Evaporation rate	No data available
Vapor Pressure	0.968 mmHg
Vapor Density	No data available
Specific Gravity	0.97
Water Solubility	Miscible with water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	240 °C / 464 °F
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%) No data available

10. Stability and Reactivity

10.2. Chemical Stability

Stable

10.4. Conditions to Avoid

Keep away from heat, sparks and flame.

10.5. Incompatible Materials

Strong oxidizers.

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

Inhalation

Harmful if inhaled. 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
Skin Contact**

Causes serious eye damage.
Causes skin irritation. May be absorbed through the skin and produce effects similar to those caused by inhalation and/or ingestion.

Ingestion

May be harmful if swallowed. Irritation of the mouth, throat, and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity

No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

Toxicity Data**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 mg/kg (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 mg/L (Rat) 4h 2.174 mg/L (Rat) 4h 2.21 mg/L (Rat) 4h 450-486 mg/L (Rat) 4h 925 mg/L (Rat) 4h >633 mg/L (Guinea pig) 1h
Alcohols, C9-11, ethoxylated	68439-46-3	1400 mg/kg (Rat) 1378 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	No toxicity at saturation (similar substances)

Substances	CAS Number	Skin corrosion/irritation
Ethylene glycol monobutyl ether	111-76-2	Causes moderate skin irritation. (Rabbit)
Alcohols, C9-11, ethoxylated	68439-46-3	May cause moderate skin irritation. (Rabbit) (similar substances)

Substances	CAS Number	Eye damage/irritation
Ethylene glycol monobutyl ether	111-76-2	Causes moderate eye irritation. (Rabbit)
Alcohols, C9-11, ethoxylated	68439-46-3	Causes serious eye damage (Rabbit) (similar substances)

Substances	CAS Number	Skin Sensitization
Ethylene glycol monobutyl ether	111-76-2	Did not cause sensitization on laboratory animals (guinea pig)
Alcohols, C9-11, ethoxylated	68439-46-3	Did not cause sensitization on laboratory animals (guinea pig) (similar substances)

Substances	CAS Number	Respiratory Sensitization
Ethylene glycol monobutyl ether	111-76-2	No information available
Alcohols, C9-11, ethoxylated	68439-46-3	No information available

Substances	CAS Number	Mutagenic Effects
Ethylene glycol monobutyl ether	111-76-2	In vivo tests did not show mutagenic effects. In vitro tests did not show mutagenic effects
Alcohols, C9-11, ethoxylated	68439-46-3	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)

Substances	CAS Number	Carcinogenic Effects
Ethylene glycol monobutyl ether	111-76-2	Not regarded as carcinogenic.
Alcohols, C9-11, ethoxylated	68439-46-3	Did not show carcinogenic effects in animal experiments (similar substances)

Substances	CAS Number	Reproductive toxicity
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Ethylene glycol monobutyl ether	111-76-2	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.
Alcohols, C9-11, ethoxylated	68439-46-3	Animal testing did not show any effects on fertility. (similar substances)

Substances	CAS Number	STOT - single exposure
Ethylene glycol monobutyl ether	111-76-2	No data of sufficient quality are available.
Alcohols, C9-11, ethoxylated	68439-46-3	No data of sufficient quality are available.

Substances	CAS Number	STOT - repeated exposure
Ethylene glycol monobutyl ether	111-76-2	No data of sufficient quality are available.
Alcohols, C9-11, ethoxylated	68439-46-3	No data of sufficient quality are available.

Substances	CAS Number	Aspiration hazard
Ethylene glycol monobutyl ether	111-76-2	No adverse health effects are expected from swallowing.
Alcohols, C9-11, ethoxylated	68439-46-3	No information available

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 (Skelettonema costatum) EbC50 (72h) 911 mg/L 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)	No information available
Alcohols, C9-11, ethoxylated	68439-46-3	EC50(96h): 0.26 mg/L (Selenastrum capricornutum)	LC50(96h): 5.7 mg/L (Oncorhynchus mykiss) NOEC(30d): 0.28 mg/L (Pimephales promelas) (similar substance)	EC50(3h): 140 mg/L (Activated sludge, domestic)	EC50(48h): 2.5 mg/L (Daphnia magna) NOEC(21d): 1.75 mg/L (Daphnia magna) (similar substance)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Ethylene glycol monobutyl ether	111-76-2	Readily biodegradable (75-88% @ 28d)
Alcohols, C9-11, ethoxylated	68439-46-3	Readily biodegradable (72 - 89% @ 28d) (similar substances)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Ethylene glycol monobutyl ether	111-76-2	0.81
Alcohols, C9-11, ethoxylated	68439-46-3	No data available

12.4. Mobility in soil

Substances	CAS Number	Mobility
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Ethylene glycol monobutyl ether	111-76-2	No information available
Alcohols, C9-11, ethoxylated	68439-46-3	No information available

Ecotoxicity Hazard Statements

None known

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

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations

13.1. Waste treatment methods**Disposal Method****Contaminated Packaging**

Disposal should be made in accordance with federal, state, and local regulations. 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.

14. Transport Information

IMDG/IMO

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

NZ 5433.1999

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

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

New Zealand Inventory of Chemicals

All components listed on inventory or are exempt.

HSNO Approval Number

HSR002490

Group Name

Additives, Process Chemicals and Raw Materials (Combustible HSR002490)

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

Not Applicable

Poisons Schedule:

None Allocated

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.

Key literature references and sources for data

www.ChemADVISOR.com/

OSHA

ECHA C&L

NZ CCID

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Revision Note Revision Note

SDS sections updated:

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End of Safety Data Sheet