

SAFETY DATA SHEET

Date of Issue: 20 December 2018

Issue Number: 2

1. IDENTIFICATION

PRODUCT NAME: Ethylene glycol monobutyl ether (EGMBE)
Other names: 2-Butoxyethanol; butyl glycol; glycol ether EB; ethylene glycol n-butyl ether; ethanol, 2-butoxy-
USE: Chemical intermediate, solvent, stabilizing agent

COMPANY: Pacific Sphere Limited
P.O. Box 129
Waiuku 2341
tel (09) 296 8965 or (09) 237 1013
fax (09) 296 8969 or (09) 237 1016

Emergency Telephone Numbers: **NATIONAL POISONS CENTRE** **0800 764 766**
POLICE, FIRE, AMBULANCE **111**

2. HAZARD IDENTIFICATION:

Hazardous substance according to the HSNO Act 1996 Hazardous Substances (Classification) Notice 2017.

EPA New Zealand Approval Code: HSR001154

Refer to www.epa.govt.nz for Controls for this substance.

HSNO Hazard Classification: 3.1D, 6.1D, 6.3B, 6.4A, 9.3C

Pictograms:



Signal word: WARNING

Hazard Statements:

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

Prevention Statements:

- P102 Keep out of reach of children.
P103 Read label before reuse.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261 Avoid breathing vapours.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to environment.
P280 Wear protective gloves and protective eye/face protection.

Response Statements:

- P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P330 Rinse mouth.
P332 + P313 If skin irritation occurs: Get medical advice.
P304 + P340 IF INHALED: Remove to fresh air and keep at rest on a position comfortable for breathing.
P312 Call a POISON CENTRE or doctor if you feel unwell.
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.
P370 + P378 In case of fire: Use dry chemical powder, carbon dioxide, water spray alcohol-resistant foam.

Storage Statement:

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

Disposal Statement:

- P501 Dispose of product to a solvent recycling facility or approved landfill in accordance with any local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common name	CAS. No	% w/w
2-Butoxyethanol	111-76-2	100

4. FIRST AID MEASURES

Consult the National Poisons Centre, telephone 0800 764 766 [0800 POISON] or a doctor in every case of suspected poisoning. If medical advice is needed, have product container or label at hand.

INGESTION: Rinse mouth with water. Give water to drink. Do NOT induce vomiting. Call a Poison Centre or doctor for advice if person feels unwell. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

INHALATION: Move person to fresh air and keep warm and at rest until recovered. Call a Poison Centre or doctor for advice if person feels unwell.

SKIN: Remove immediately all contaminated clothing. Wash affected area with plenty of water followed by soap and water. If irritation occurs, get medical advice. Wash contaminated clothing before re-using.

EYES: Hold eyes open and rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do after the first 5 minutes. Continue rinsing for at least 15 minutes. Get medical attention if irritation persists.

NOTES TO PHYSICIAN: Treat symptomatically.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use dry chemical powder, carbon dioxide, water spray or alcohol resistant foam. Do NOT use water in a jet.

FIRE & EXPLOSION HAZARDS: In case of fire, avoid breathing smoke. Toxic gases and vapours may be generated including carbon monoxide and carbon dioxide. Prevent extinguishing water from getting into the aquatic environment.

SPECIFIC HAZARDS: Cool fire exposed containers by spraying with water.

FIRE-FIGHTING EQUIPMENT: Wear self-contained breathing apparatus and personal protection clothing.

6. ACCIDENTAL RELEASE MEASURES

SPILLS: Wear personal protective equipment. Avoid contact with skin and eyes
Combustible liquid. Shut off leak if safe to do so. Remove or isolate ignition sources. Take precautions against static discharge. Bond or ground (earth) all equipment. Use non-sparking tools. Ventilate contaminated area.

Isolate hazard area and keep unnecessary and unprotected people away from area. Stay upwind and keep out of low-lying areas.

Contain spill. Avoid run off into drains or sewers. Do not contaminate watercourses or the ground.

For large spills (more than a drum), recover liquid and transfer by mechanical means to labeled salvage tank that can be sealed for recovery or disposal of product. Do not flush away residues with water. Allow residues to evaporate. Remove any contaminated soil and dispose of safely by waste management company.

For small spills, absorb with an appropriate material, e.g. vermiculite, and dispose of waste safely in a labelled sealed container for recovery or disposal.

If contamination of drains, sewers or waterways occurs immediately notify Emergency Services (111).

DISPOSAL: Dispose of contaminated waste or product to a solvent recycling facility or to an approved landfill in accordance with local regulations.

7. HANDLING AND STORAGE

HANDLING: Combustible liquid. Read label before use. Wear personal protective equipment. Wash hands and exposed skin after handling.

Keep container closed when not in use. Use only in well-ventilated areas. No smoking. Avoid breathing vapors or direct contact with product. Remove or isolate ignition sources. Avoid sparks. All equipment must be grounded/bonded when transferring product to avoid static discharge.

STORAGE: Ensure all storage areas have adequate fire-fighting equipment. Store securely in closed original container in a cool dry well-ventilated place, away from sunlight, ignition sources, heat, incompatible substances, aerosols, other flammables, oxidizing agents, and corrosives, out of reach of children, and away from food, drink and animal foodstuffs. Vapour heavier than air. Take precautions to avoid vapour accumulation in pits and confined spaces.

Recommended materials: Steel, stainless steel. Nickel, polyethylene, polypropylene, glass.
Unsuitable materials: Aluminium.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES: NZ Workplace Exposure Standard (WES) have been set for this substance.

WES-TWA

2-Butoxyethanol_{skin} 25 ppm (121 mg/m³)

ENGINEERING CONTROLS: Use only in a well-ventilated area. If airborne concentrations unknown or exceed exposure limits, wear respiratory protective equipment. A gas filter for gases/vapors of organic compounds (boiling point >65 °C) is suitable. Where air-filtering respirators are unsuitable (e.g. air-borne concentrations are high, risk or oxygen deficiency, confined space) use positive pressure breathing apparatus.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Wear impervious protective clothing including safety shoes or boots. Wear appropriate chemical resistant gloves, e.g. butyl rubber. Avoid contact with eyes. Wear face shield or chemical goggles if splash or aerosol/mist exposure risk. Refer to the relevant AS/NZ standards for appropriate personal protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear colorless liquid
Odour:	Pleasant, sweet
Odour threshold:	Not available
pH:	Not applicable
Melting point/Freezing point(°C):	Not available
Boiling point/Boiling range (°C):	171
Flash point (°C):	67
Flammability (solid, gas):	Not applicable
Upper/lower flammability limits in air (%v/v):	Not available
Vapour pressure (Pa at 20°C):	1.17
Vapour density (air =1):	4.1
Relative density at 20°C, g/cc:	0.90
Solubility in water:	Soluble
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature (°C):	Not available
Decomposition temperature (°C):	230
Kinematic viscosity:	Not available
Volatile organic carbon content:	Not available
Evaporation rate (nBuAc =1):	0.1

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions of storage and use.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents, strong bases and combustible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Dependent on conditions under which decomposition (combustion, thermal) occurs. A complex mixture of airborne solids and gases (carbon monoxide, carbon dioxide) will be evolved.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which might occur if this product is not handled in the recommended manner.

ACUTE TOXICITY: Harmful if swallowed or inhaled. May be harmful if absorbed through the skin. Metallic taste. If large quantity ingested, central nervous system depression with symptoms of headache, nausea, dizziness, mental confusion and runny nose. Blood and urine composition may also be affected.

ASPIRATION HAZARD: Not classified with aspiration hazard however there is a risk of chemical pneumonitis if product swallowed then aspirated into lungs.

RESPIRATORY IRRITATION: Inhalation of vapours may be irritating to respiratory system.

SKIN CORROSION/IRRITATION: Mild skin irritant.

SERIOUS EYE DAMAGE/IRRITATION: Irritating to eyes. Symptoms may include tearing, redness and burning sensation.

RESPIRATORY OR SKIN SENSITISATION: Not identified as contact sensitizer.

GERM CELL MUTAGENICITY: Not identified with mutagenic properties.

CARCINOGENICITY: Not identified with carcinogenic properties.

REPRODUCTIVE TOXICITY: Not classified with adverse effects on fertility or the unborn child.

SPECIFIC ORGAN TOXICITY (REPEATED AND SINGLE EXPOSURE): Not classified.

NARCOTIC EFFECTS: No information available.

Toxicological data:

Oral, guinea pig LD₅₀ 1414 mg/kg b.w.

Inhalation, rat LC₅₀ (4 hr) 2.174 mg/L

Additional information: Not available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Product is harmful to terrestrial vertebrates. This product has not been classified as not being ecotoxic in the aquatic environment however do NOT discharge to sewer or any waterway.

PERSISTENCE AND BIODEGRADABILITY: Readily biodegradable. Not expected to bioaccumulate significantly. Product is mobile in soil and may contaminate groundwater. In soil, estimated half-life is 7 days to 4 weeks. Estimated half-life in ground water ranges from 14 days to 8 weeks. Estimated photo degradation half-life in air is 16 to 27.5 hours.

POTENTIAL FOR BIOACCUMULATION: Not expected to bioaccumulate significantly.

MOBILITY IN SOIL: Product is mobile in soil and may contaminate groundwater.

OTHER ADVERSE EFFECTS: Not available.

Ecotoxicological data: Not available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Recover and recycle (e.g. predistillation facility) product whenever possible. Send clean dry drums to recycling facility or metal scrap reclaimer. Dispose of waste in accordance with Regional Authority or local council bylaws.

SPECIAL PRECAUTIONS: Ensure empty containers are vented and dry. Residues may cause a hazard. Do not puncture, cut or weld uncleaned drums. Do not use empty drums for storing other products.

14. TRANSPORT REGULATIONS

This product is not classified as a Dangerous Goods.
Please consult the Land Transport Rule: Dangerous Goods 2005, and NZS 5433:2012 Transport of Dangerous Goods on Land for information.

TRANSPORT INFORMATION:

UN Number: Not regulated

PROPER SHIPPING NAME:

Class:

Sub risk:

Packing Group:

HAZCHEM:

Marine Pollutant: No

15. REGULATORY INFORMATION

Hazardous substance according to the HSNO Act 1996 Hazardous Substances (Classification) Notice 2017.

HSNO Substance Approval Code: HSR001154; Ethanol, 2-butoxy-

Refer to Section 2 for hazardous classifications and to www.epa.govt.nz for Controls and Conditions.

For additional compliance information refer to Worksafe NZ at www.worksafe.govt.nz.

16. OTHER INFORMATION

ISSUE DATE: 20 December, 2018

REPLACES: SDS dated 13 March 2014.

REASONS FOR ISSUE: Review of SDS.

ABBREVIATIONS:

CAS No.	Chemical Abstracts Service Number
EPA	Environmental Protection Authority
HSNO	Hazardous Substances & New Organisms
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
WES	Workplace Exposure Standard

REFERENCES:

Chemical Classification and Information database (CCID); www.epa.govt.nz
Supplier Safety Data Sheets for components

Before using any product, read its label carefully and ensure that you understand its contents. This information is, to the best of our knowledge and belief, accurate and reliable at the date of publication. The information

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END of SAFETY DATA SHEET