

Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: METHYL DIGLYCOL

Other name(s): Diethylene glycol monomethyl ether; Diglycol monomethyl ether; Ethylene diglycol monomethyl ether; Methoxy diglycol; 2-(2-Methoxyethoxy) ethanol; DEGME; MDGE; Methyl Carbitol; Methyl diglycolether.

Recommended Use of the Chemical and Restrictions on Use Fuel additive; solvent.

Supplier: Ixom Operations Pty Ltd (Incorporated in Australia)
NZBN: 9429041465226
Street Address: 166 Totara Street
Mt Maunganui South
New Zealand

Telephone Number: +64 9 368 2700
Facsimile: +64 9 368 2710
Emergency Telephone: **0 800 734 607 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

SIGNAL WORD: WARNING

Subclasses:

Subclass 3.1 Category D (low hazard) - Flammable Liquids.
Subclass 6.1 Category D - Substances which are acutely toxic.
Subclass 6.4 Category A - Substances that are irritating to the eye.
Subclass 6.8 Category B - Substances that are suspected human reproductive or developmental toxicants.
Subclass 6.9 Category B - Substances that are harmful to human target organs or systems.
Subclass 9.3 Category C - Substances that are harmful to terrestrial vertebrates.

Approval Number: HSR002752



Hazard Statement(s):

H227 Combustible liquid.
H303 May be harmful if swallowed.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H433 Harmful to terrestrial vertebrates.

Safety Data Sheet



Precautionary Statement(s):

Prevention:

P102 Keep out of reach of children.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260 Do not breathe mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P273 Avoid release to the environment.

Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P363 Wash contaminated clothing before re-use.
P322 Specific measures (see First Aid Measures on the Safety Data Sheet).
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.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P370+P378 In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet for extinction.

Storage:

P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 In case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Notice 2017. This may also include any method of disposal that must be avoided.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
2-(2-methoxyethoxy) ethanol	111-77-3	>=99.0%	H361d
Impurities	-	to 100%	-

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact:

If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

Eye Contact:

If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Safety Data Sheet



Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by the mouth to an unconscious patient. Seek medical advice.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards arising from the chemical:

Combustible liquid. May form flammable vapour mixtures with air. Vapour may travel a considerable distance to source of ignition and flash back.

Special protective equipment and precautions for fire-fighters:

On burning will emit toxic fumes, including those of oxides of carbon. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Keep containers cool with water spray. If safe to do so, remove containers from path of fire.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Shut off all possible sources of ignition. Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid skin and eye contact and breathing in vapour. Keep out of reach of children. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Suitable containers: steel. Suitable containers: stainless steel. Do not store in aluminium containers. Do not store in copper or copper alloy containers. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Standards: No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority.

Appropriate engineering controls:

Use in well ventilated areas. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

Safety Data Sheet



Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.



Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Colourless
Odour:	Mild Ether -like
Molecular Formula:	C ₅ H ₁₂ O ₃
Solubility:	Miscible in water.
Specific Gravity:	1.02 @20°C
Relative Vapour Density (air=1):	4.1
Vapour Pressure (20 °C):	0.24 hPa
Flash Point (°C):	91
Flammability Limits (%):	1.5-22.7 (vol)
Autoignition Temperature (°C):	215 @1013 hPa
Boiling Point/Range (°C):	193
pH:	Not available
Viscosity:	0.00348 Pa.s @25°C
Partition Coefficient:	log Kow = 0.47
Freezing Point/Range (°C):	< -84 @1013 hPa

10. STABILITY AND REACTIVITY

Reactivity:	Reacts with metals.
Chemical stability:	Stable if stored and handled under recommended conditions. Hygroscopic: absorbs moisture or water from surrounding air. Unstable on exposure to air.
Possibility of hazardous reactions:	Reacts slowly on exposure to air: peroxidation resulting in increased fire or explosion risk. Reacts with metals liberating flammable hydrogen gas. Reacts with some bases .
Conditions to avoid:	Avoid exposure to moisture. Avoid exposure to air. Avoid exposure to heat, sources of ignition, and open flame.
Incompatible materials:	Incompatible with strong bases , oxidising agents , metals , water , moisture , copper , aluminium .

Safety Data Sheet



Hazardous decomposition products: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is showing signs of central system depression (like those of drunkenness) there is greater likelihood of the patient breathing in vomit and causing damage to the lungs.

Eye contact: May be an eye irritant.

Skin contact: Contact with skin may result in irritation.

Inhalation: Where this material is used at elevated temperatures, vapour may cause irritation to mucous membranes of the respiratory tract, headache and nausea.

Acute toxicity:

Oral LD50 (rat): >7000 mg/kg

Oral LD50 (mice): 7128 mg/kg

Dermal LD50 (rabbit): 9404 mg/kg

Skin corrosion/irritation: Non-irritant (rabbit).

Serious eye damage/irritation: Non-irritant (rabbit).

Respiratory or skin sensitisation: Not a skin sensitiser (human).

Chronic effects:

Mutagenicity: The chemical was not mutagenic to bacteria.

Carcinogenicity: Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).

Reproductive toxicity: Suspected of damaging fertility or the unborn child.

Aspiration hazard: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

Persistence/degradability: Readily biodegradable in water.
Log Pow < 3, therefore, the risk of bioaccumulation in aquatic species is low.

Bioaccumulative potential: Low log P value suggests little potential for bioaccumulation

Mobility in soil: No information available.

48hr EC50 (Daphnia magna): >500 mg/L

96hr LC50 (fish): 7500 mg/L (Lepomis macrochirus)

13. DISPOSAL CONSIDERATIONS

Safety Data Sheet



Disposal methods:

Refer to local government authority for disposal recommendations. Dispose of material through a licensed waste contractor. Normally suitable for incineration by an approved agent.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

Subclasses:

Subclass 3.1 Category D (low hazard) - Flammable Liquids.

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16. OTHER INFORMATION

Supplier Safety Data Sheet; 04/ 2014.

This safety data sheet has been prepared by Ixom Operations Pty Ltd (Toxicology & SDS Services).

Reason(s) for Issue:

5 Yearly Revised Primary SDS

Update in Toxicological Information

Change in Physical Properties

Product Name: METHYL DIGLYCOL

Substance No: 000030201601

Issued: 06/12/2018

Version: 4

Safety Data Sheet



This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.