

SAFETY DATA SHEET

MONOETHYLENE GLYCOL (MEG)

MMEG001

1. Identification of the substance/preparation and of the company/undertaking

Product name : **MONOETHYLENE GLYCOL (MEG)** **Supplier** : Brenntag UK and Ireland
 Albion House
 Rawdon Park
 Green Lane
 Yeadon
 Leeds
 LS19 7XX

Chemical product name : ETHAN-1,2-DIOL
Synonyms : Dihydroxy ethane 1,2
 Glycol
 MEG

EMERGENCY ONLY TELEPHONE NUMBER : (N.C.E.C. CULHAM) 01865 407333 **Telephone No.** : (0113) 3879200
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Formula : HOCH₂CH₂OH **Molecular Mass** : 62.1

2. Composition/information on ingredients

Substance/Preparation : Substance

Chemical name*	CAS No.	%	EC Number	Symbol	R-Phrases
1) ETHAN-1,2-DIOL	107-21-1	>99	203-473-3	Xn	R22

* Occupational Exposure Limit(s), if available, are listed in Section 8

CAS No. 107-21-1
EINECS Number 203-473-3

3. Hazards identification

Human health hazards : Harmful if swallowed.

4. First-aid measures

First-Aid measures

- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical attention.
- Skin contact** : Wash with soap and water. Get medical attention if irritation develops.
- Eye Contact** : In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Obtain medical attention.

5. Fire-fighting measures

Extinguishing Media

Suitable : SMALL FIRE: Use DRY chemical powder.
 LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Hazardous thermal (de)composition products : carbon oxides (CO, CO₂)

Special fire-fighting procedures : Fire fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.

Protection of fire-fighters : Be sure to use an approved/certified respirator or equivalent.

6. Accidental release measures

- Personal Precautions** : Splash goggles. Protective overalls/suit. Boots. Gloves. Select appropriate protective clothing for the size of the spillage.
- Environmental precautions and cleanup methods** : Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.
: Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.

7. Handling and storage

- Handling** : Keep away from heat. Keep away from sources of ignition. Empty containers may still contain significant residual amounts of the product. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapour/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, alkalis.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.
- Packaging materials**
- Recommended use** : Use original container. Carbon steel. Mild steel. Stainless Steel.

8. Exposure controls/personal protection

- Engineering measures** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value. Ensure that eyewash stations and safety showers are close to the workstation location.
- Hygiene measures** : Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

<u>Ingredient Name</u>	<u>Workplace Exposure Limits</u>
1) ETHAN-1,2-DIOL	EH40 (United Kingdom (UK)). LTEL: 52 mg/m ³ Period: 8 hour(s). STEL: 104 mg/m ³

Personal protective equipment

- Skin and body** : Overalls or Lab coat.
- Hands** : Use rubber, neoprene or PVC gloves.
- Eyes** : Splash goggles.

9. Physical and chemical properties

- Physical state** : Liquid. (Viscous liquid.)
- Colour** : Colourless.
- Odour** : Mild.
- Odour threshold** : 25 ppm
- Boiling point** : 196 to 199°C (384.8 to 390.2°F)
- Melting point** : <-12°C (10.4°F)
- Density** : 1.15 g/cm³ at 20°C (68°F)
- Vapour pressure** : 0.007 kPa (at 20°C)
- Solubility** : Easily soluble in cold water.
- Octanol/water partition coefficient** : The product is more soluble in oil; log(oil/water) = 0.9
- pH** : 6 to 7.5 [Neutral.]
- Flash point** : CLOSED CUP: 111°C (231.8°F).
- Autoignition temperature** : 417°C (782.6°F)
- Lower explosion limit** : LOWER: 3.2%

10. Stability and reactivity

- Stability** : The product is stable.
- Conditions to Avoid** : High Temperatures
- Materials to avoid** : Reactive with oxidizing agents, acids, alkalis.
- Hazardous decomposition products** : carbon oxides (CO, CO₂)

11. Toxicological information

Local effects

- Skin irritation : Slightly irritating.
 Eye irritation : Irritating to eyes.

Acute toxicity : Acute oral toxicity (LD50): 5890 to 13400 mg/kg [Rat].

Specific effects

- Reproduction toxicity : Causes foetotoxicity in animals; considered to be secondary to maternal toxicity.

12. Ecological information

- Persistence/degradability : **Biodegradability:**
 Readily biodegradable.
- Bioaccumulative potential : This product shows a low bioaccumulation potential.
- Ecotoxicity : Ecotoxicity in water:
 (LC50): 22810 mg/l, 96 hours [Fish (Trout)].
 (EC50): 10000 mg/l, 48 hours [Daphnia].

13. Disposal considerations

Methods of disposal ; Waste of residues ; Contaminated packaging : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Waste Classification : Not applicable.

14. Transport information

International transport regulations

- UN : UN number Not regulated.
- UN : Proper shipping name -
- ADR/RID : Class -
- IMDG : Proper shipping name -
- IATA : Proper shipping name -
- IATA : Additional Information -

15. Regulatory information

EU Regulations

Hazard symbol(s) : 

- Classification : Harmful
- Risk Phrases : R22- Harmful if swallowed.
- Safety Phrases : S2- Keep out of the reach of children.
- Contains : - ETHAN-1,2-DIOL
- Product Use : Classification and labelling have been performed according to EU directives 67/548/EEC, 88/379/EEC, including amendments and the intended use.
 - Consumer applications.

16. Other information

HISTORY

- Date of printing : 18/02/2009.
- Date of issue : 16/10/2008.
- Date of previous issue : 07/06/2001.
- Version : 2.02
- Prepared by : Michael Hale / Alistair Hunter

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

CHANGES SINCE PREVIOUS VERSIONS:

OEL's added
OEL's changed to LTEL and values changed.

Version 2.02

Page: 4/4