

# SAFETY DATA SHEET



**Product Name:** MONOETHYLENE GLYCOL

**Version No.** 2      **Revision date** 03-11-2015      **Initial issue date** 29-07-2003

## 1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND OF THE COMPANY

**1.1 Product Identifier** MONOETHYLENE GLYCOL (ETHANE-1,2-DIOL)  
**1.2 Relevant/Use(s)/misuse(s)** Industrial  
**1.3 SDS Supplier** Beacon Water Treatments Limited  
Parsons Hall Industrial Estate  
High Street **Telephone:** 01933 410066  
Irchester, NN29 7AB  
**1.4 Emergency Telephone** 01604 505735 (Office hours) **Competent Person e-mail:** trevor@rising-hsande.co.uk

## 2. HAZARDS IDENTIFICATION

### 2.1 CLASSIFICATION OF THE SUBSTANCE

**2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)**

Acute Tox. 4 H302

### 2.1.2 Additional information

For text of hazard statements, see section 16

### 2.2 LABELLING ELEMENTS

**Pictogram(s):**



**Signal word** WARNING

**Hazard statement(s)** H302 HARMFUL IF SWALLOWED

**Precautionary statement(s)** P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.  
P281 USE PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED.  
P301+312 IF SWALLOW: CALL A POISON CENTER OR DOCTOR/PHYSICIAN IF YOU FEEL UNWELL.

**2.3 Other hazards** THE PRODUCT HAS A WORKPLACE EXPOSURE LIMIT (WEL). THE PRODUCT HAS BEEN REPORTED TO BE HAZARDOUS TO HEALTH AFTER PROLONGED HANDLING (SEE SECTION 11)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical Characterisation** MONOETHYLENE GLYCOL

<u>Chemical name</u>	<u>CAS-No</u>	<u>EINECS/ELINCS</u>	<u>Classification</u>	<u>Concentration</u>
MONOETHYLENE GLYCOL	107-21-1	203-473-3	Not classified	≤ 100%

## 4. FIRST AID MEASURES

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#### 4. FIRST AID MEASURES

##### 4.1 Description of measures

Inhalation	Not normally a route of exposure
Skin contact	No special first aid measures necessary
Eye contact	Wash out eye thoroughly with plenty of water until irritation subsides. If necessary, seek medical advice.
Ingestion	If product is swallowed, do NOT induce vomiting. Drink plenty of water; if necessary, seek medical advice.

**4.2 Most important effects/symptoms** None known.

**4.3 Immediate/special treatment** Treatment as described above.

#### 5. FIRE FIGHTING MEASURES

**5.1 Extinguishing media** To suit local surroundings (e.g. water mist, carbon dioxide, foam, chemical powder for large fires). The product is not flammable. Do not use strong water jets.

**5.2 Special hazards** Decomposition products released in a fire should be considered as probably harmful if inhaled.

**5.3 Advice for fire fighters** Wear self-contained breathing apparatus. Cool containers with water spray.

#### 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions** Adhere to personal protective measures.

**6.2 Environmental precautions** Do not allow to get into waste water or waterways; if this occurs, inform the relevant water authority at once.

**6.3 Methods and materials for cleaning up** Take up with absorbent material, e.g. sand, sawdust, into tightly closed containers. Label container and dispose of as prescribed

**6.4 Reference to other sections** See section 8 for personal protective equipment.

#### 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling** Handle in accordance with good hygiene and safety practice.

**7.2 Conditions for safe storage** Ensure adequate ventilation of the storage area. Keep containers tightly closed, cool and dry. Product is hygroscopic.

**7.3. Specific end use(s)** Industrial

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**8.1 Controls parameters** Occupational Exposure Limits (WELs) have been assigned (EH40/2011).

LTEL (8 hour TWA)	ppm	10	mg/m <sup>3</sup>	Particulate	
STEL (15 min)	40	ppm	104	mg/m <sup>3</sup>	Vapour
LTEL (8 hour TWA)	20	ppm	52	mg/m <sup>3</sup>	Vapour

##### 8.2 Exposure controls

**Engineering controls** Ensure adequate ventilation of working area.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Personal protection</b>	Observe normal standards for handling chemicals. Wash hands before breaks and after work. Avoid contact with skin and eyes. Wear personal protective equipment appropriate to the task (see below)
<b>Eye protection</b>	Safety goggles (e.g. EN 166) if splashing is likely.
<b>Skin protection</b>	polychloroprene gloves ( $\geq 8$ hrs, 0.5 mm thickness) or nitrile gloves ( $\geq 8$ hrs, 0.4 mm thickness) or butyl rubber gloves ( $\geq 8$ hrs, 0.7 mm thickness) (also consider your own risk assessment; e.g. breakthrough times, rates of diffusion and degradation, tasks undertaken)
<b>Respiratory protection</b>	If ventilation is insufficient
<b>Other protection</b>	Protective overall

## 9. PHYSICAL & CHEMICAL PROPERTIES

### 9.1 Basic physical and chemical properties

<b>Physical form</b>	Liquid
<b>Colour</b>	Colourless
<b>Odour</b>	None
<b>Odour threshold</b>	No data available
<b>pH</b>	6.5-7 (100g/l @ 20°C)
<b>Boiling pt / range</b>	197.4 °C (@ 1013 hPa)
<b>Melting pt / range</b>	-13 °C
<b>Flash point</b>	111 °C (DIN 51758)
<b>Auto ignition temp.</b>	371 °C
<b>Evaporation rate</b>	Not applicable
<b>Density</b>	1.11 g/cm <sup>3</sup> @ 25°C
<b>Flammability</b>	Not applicable
<b>Explosion limits</b>	Lower: 3.2% Upper: 28%
<b>Vapour pressure</b>	0.123 hPa @ 20°C
<b>Relative vapour density</b>	Not determined
<b>Water solubility</b>	Completely miscible @20°C
<b>Thermal decomposition</b>	>200°C
<b>Viscosity (dynamic)</b>	16.1 mPa.s @ 25°C
<b>Partition coefficient</b>	Log P <sub>o/w</sub> = -1.36 @ 23°C
<b>Explosive properties</b>	Non explosive
<b>Oxidising properties</b>	Not applicable
<b>9.2 Other information</b>	None known

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## 10. STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions of handling.
10.2 Chemical stability	Stable
10.3 Hazardous reactions	None known.
10.4 Conditions to avoid	Moisture, exposure to light, high temperatures >40°C and incompatible substances
10.5 Incompatible material	Strong oxidising agents
10.6 Hazardous decomposition products	None

## 11. TOXICOLOGICAL INFORMATION

### 11.1 information on toxicological effects

Acute toxicity	LD <sub>50</sub> mouse (oral)	>3500	mg/kg	
	LC <sub>50</sub> rabbit (inhal)	>2.5	mg/l	6 hrs, aerosol
Dermal compatibility	Non irritant (rabbit)			
Mucous membrane compatibility	Non irritant (rabbit eye)			
Further information	Has been reported to causes damage to organs (kidney) through prolonged or repeated exposure following oral administration.			

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity	LC <sub>50</sub>	Fish (P. promelas )	72860	mg/l	96 hours, static test
	EC <sub>50</sub>	Daphnia magna	>100	mg/l	48 hours (OECD 202)
	EC <sub>50</sub>	algae	>6500	mg/l	96 hours
12.2 Degradability	90 - 100 % (activated sludge; Related to: Chemical oxygen demand; Exposure Time: 10 d) (OECD 301 A)				
12.3 Bioaccumutive potential	No data available				
12.4 Mobility in soil	No data available				
12.5 PBT/vPvB assessment	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).				
12.6 Other adverse effects	BOD: 1245 mg/g				

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment measures

Advice on disposal	In accordance with national and local authority regulations, e.g. The Hazardous Waste (England & Wales) Regulations 2005.
Contaminated packaging	Treat empty containers in the same way as the product or if possible wash out thoroughly and recycle.

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#### 14. TRANSPORT INFORMATION

14.1 United Nations No.	Not classified (ADR, IMDG, IATA)
14.2 Proper shipping name	Not classified (ADR, IMDG, IATA)
14.3 Transport class(s)	Not classified (ADR, IMDG, IATA)
14.4 Packing group	Not classified (ADR, IMDG, IATA)
14.5 Environmental hazards	The product should not be marked as a marine pollutant. (ADR, IMDG, IATA)
14.6 Special procedures	Not applicable (ADR, IMDG, IATA)
14.7 Transport in bulk	Not applicable (ADR, IMDG, IATA)

#### 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations	The product is classified in accordance with EC Regulation 1272/2008 (CLP). Other regulatory information and provisions are not applicable for this product.
15.2 Chemical safety assessment	Not applicable

#### 16. OTHER INFORMATION

**Further information** The SDS has been revised in accordance with EC Regulation 1272/2008 (CLP). The product has been classified using an additivity formula or the tiered approach using generic concentration limits [Regulation (EC) No 1272/2008]

**Hazard statements referred to in sections 2/3**

H302: Harmful if swallowed

**Sources of data** Other suppliers' safety data sheets, EH40(2011)

**Date of issue** 03-11-2015

**This information is based on our present state of knowledge and is intended to describe our products from the point of view of the safety requirements. It should not be construed as guaranteeing specific properties.**

Data sheet prepared by Rising HS&E Services.