

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifiers**

Product Name : 100% Ethylene glycol
Product Number : HR2-621
Index-No : 603-027-00-1
REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
CAS Number : 107-21-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the Safety Data Sheet

Company : Hampton Research
34 Journey
Aliso Viejo, CA 92656-3317
United States
Telephone : 949 425 1321
Telephone technical support is available 8:00 a.m. to 4:30 p.m. USA Pacific Standard Time.
Fax : 949 425 1611
Fax Technical Support is available 24 hours a day.
e-mail : tech@hrmail.com
e-mail Technical Support is available 24 hours a day.

1.4 Emergency telephone number

Emergency phone : 949 425 1321
For CHEMTREC Assistance : 800 424 9300
For CHEMTREC Assistance : 703 527 3887 (International)

SECTION 2: Hazards Identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral (Category 4), H302

For the full text of the H-Statements mentioned in this Section, see Section 16.

(CONTINUED) - SECTION 2: Hazards Identification

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal Word : Warning

Hazardous statement(s)

H302 : Harmful if swallowed.

Precautionary statement(s) : none

Supplemental Hazard Statements : none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/Information On Ingredients

3.1 Substances

Synonyms	: None
Formula	: $MgCl_2 \cdot 6H_2O$
Molecular Weight	: 203.30
CAS Number	: 7791-18-6
EC Number	: 232-094-6
Registration Number	: 01-2119456816-28-XXXX

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
KW2975000	14,3798	505945	No	MFCD00002885	N/A

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Ethylene glycol		
CAS-No. 107-21-1 EC-No. 203-473-3 Index-No. 603-027-00-1 Registration number 01-2119456816-28-XXXX	Acute Tox. 4; H302	<= 100 %

SECTION 3: Composition/Information On Ingredients

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
Ethylene glycol		
CAS-No. 107-21-1 EC-No. 203-473-3 Index-No. 603-027-00-1 Registration number 01-2119456816-28-XXXX	Xn, R22	<= 100 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General Advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes as a precaution and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

Carbon oxides

(CONTINUED) - SECTION 5: Fire Fighting Measures

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further Information

no data available

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and Storage

7.1 Personal Precautions

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic.

Storage class (TRGS 510): Combustible liquids

7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	Value
Workers	Inhalation	Long-term local effects	35 mg/m ³
Workers	Skin contact	Long-term systemic effects	106mg/kg BW/d
Consumers	Inhalation	Long-term local effects	7 mg/m ³
Consumers	Skin contact	Long-term systemic effects	53mg/kg BW/d

8.2 Exposure controls

Appropriate engineering controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

(CONTINUED) - SECTION 8: Exposure Controls/Personal Protection

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: Liquid	Color: Clear, Colorless
b) Odor	no data available	
c) Odor Threshold	no data available	
d) pH	no data available	
e) Melting point/freezing point	Melting point/range: -13°C Melting point/range: -13 - -11°C	
f) Initial boiling point and boiling range	196 - 198°C	
g) Flash point	111°C - closed cup	
h) Evaporation rate	1	
i) Flammability (solid, gas)	no data available	
j) Upper/lower flammability or explosive limits	Upper explosion limit: 15.3%(V) Lower explosion limit: 3.2%(V)	
k) Vapor pressure	0.11 hPa at 20°C 0.13 hPa at 20°C	
l) Vapor density	2.14 - (Air = 1.0)	
m) Relative density	1.113 g/mL at 25°C	
n) Water solubility	completely misciblesoluble	
o) Partition coefficient: noctanol/water	log Pow: -1.36	
p) Autoignition temperature	400°C Auto-flammability	
q) Decomposition temperature	no data available	
r) Viscosity	no data available	
s) Explosive properties	no data available	
t) Oxidizing properties	no data available	

9.2 Other safety information

Relative vapour density	2.14 - (Air = 1.0)
-------------------------	--------------------

SECTION 10: Stability and Reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Strong acids, Strong oxidizing agents, Strong bases, Aldehydes, Aluminum

10.6 Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 4,700 mg/kg

LD50 Dermal - rabbit - 10,626 mg/kg

Skin / irritation and corrosion

no data available

Serious eye damage/eye irritation

Eyes - rabbit

Result: Mild eye irritation - 24 h

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

Reproductive toxicity

Laboratory experiments have shown teratogenic effects.

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Specific target organ toxicity - single exposure

no data available

(CONTINUED) - SECTION 11: Toxicological Information

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information

RTECS: KW2975000

When ingested early symptoms mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, hypocalcemic tetany, and severe metabolic acidosis. Without treatment, death may occur in 8 to 24 hours. Victims who survive the initial toxicity period usually develop renal failure along with brain and liver damage., Exposure to and/or consumption of alcohol may increase toxic effects.

Central nervous system - Irregularities - Based on Human Evidence

SECTION 12: Ecological Information

12.1 Toxicity

Toxicity to fish

LC50 - Oncorhynchus mykiss (rainbow trout) - 18,500 mg/l - 96 h

LC50 - Leuciscus idus (Golden orfe) - > 10,000 mg/l - 48 h

NOEC - Pimephales promelas (fathead minnow) - 32,000 mg/l - 7 d

NOEC - Pimephales promelas (fathead minnow) - 39,140 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 74,000 mg/l - 24 h

NOEC - Daphnia - 24,000 mg/l - 48 h

LC50 - Daphnia magna (Water flea) - 41,000 mg/l - 48 h

12.2 Persistence and degradability

no data available

Ratio BOD/ThBOD 0.78 %

12.3 Bioaccumulative potential

Does not bioaccumulate.

Bioaccumulation

other fish - 61 d
- 50 mg/l

Bioconcentration factor (BCF): 0.60

(CONTINUED) - SECTION 15: Regulatory Information

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other Information

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
H302	Harmful if swallowed.

Full text of R-phrases referred to under sections 2 and 3

Xn	Harmful
R22	Harmful if swallowed.

DISCLAIMER

For research use only. Not for drug, household, or other use.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of this product. Hampton Research Corp., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

License granted to make unlimited paper copies for internal use only.

© 1991-2020 Hampton Research Corp.