



# SAFETY DATA SHEET

Creation Date 02-Feb-2010

Revision Date 01-Apr-2015

Revision Number 7

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identification

**Product Description:** Ethylene glycol  
**Cat No. :** 146750000; 146750010; 146750025; 146750250  
**Synonyms** Monoethylene glycol; 1,2-Ethanediol  
**CAS-No** 107-21-1  
**EC-No.** 203-473-3  
**Molecular Formula** C2 H6 O2  
**Reach Registration Number** 01-2119456816-28

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

**Recommended Use** Laboratory chemicals.  
**Sector of use** SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites  
**Product category** PC21 - Laboratory chemicals  
**Process categories** PROC15 - Use as a laboratory reagent  
**Environmental release category** ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)  
**Uses advised against** No Information available

### 1.3. Details of the supplier of the safety data sheet

**Company** Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium  
**E-mail address** begel.sdsdesk@thermofisher.com

### 1.4. Emergency telephone number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

##### Physical hazards

Based on available data, the classification criteria are not met

##### Health hazards

Acute oral toxicity Category 4  
Specific target organ toxicity - (repeated exposure) Category 2

##### Environmental hazards

Based on available data, the classification criteria are not met

#### Classification according to EU Directives 67/548/EEC or 1999/45/EC

**Symbol(s)** Xn - Harmful  
**R-phrases(s)** R22 - Harmful if swallowed

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

## 2.2. Label elements



Signal Word

Warning

### Hazard Statements

H302 - Harmful if swallowed

H373 - May cause damage to organs through prolonged or repeated exposure

### Precautionary Statements

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

## 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008	DSD Classification - 67/548/EEC
Ethylene glycol	107-21-1	EEC No. 203-473-3	>95	Acute Tox. 4 (H302) STOT RE 2 (H373)	Xn; R22

Reach Registration Number	01-2119456816-28
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For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

#### Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

#### Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Get medical attention immediately if symptoms occur.

#### Protection of First-aiders

Ensure that medical personnel are aware of the material(s) involved, take precautions to

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protect themselves and prevent spread of contamination.

## 4.2. Most important symptoms and effects, both acute and delayed

Breathing difficulties.

## 4.3. Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically. Symptoms may be delayed.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### **Suitable Extinguishing Media**

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

#### **Extinguishing media which must not be used for safety reasons**

No information available.

### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

#### **Hazardous Combustion Products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

### 6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

### 6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.

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## 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **EU** - Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

Component	European Union	The United Kingdom	France	Belgium	Spain
Ethylene glycol	TWA: 20 ppm 8 hr TWA: 52 mg/m <sup>3</sup> 8 hr STEL: 40 ppm 15 min STEL: 104 mg/m <sup>3</sup> 15 min Possibility of significant uptake through the skin	STEL: 40 ppm 15 min STEL: 104 mg/m <sup>3</sup> 15 min STEL: 30 mg/m <sup>3</sup> 15 min TWA: 10 mg/m <sup>3</sup> 8 hr TWA: 20 ppm 8 hr TWA: 52 mg/m <sup>3</sup> 8 hr Skin	TWA / VME: 20 ppm (8 heures). indicative limit TWA / VME: 52 mg/m <sup>3</sup> (8 heures). indicative limit STEL / VLCT: 40 ppm. indicative limit STEL / VLCT: 104 mg/m <sup>3</sup> . indicative limit Peau	Huid	STEL / VLA-EC: 40 ppm (15 minutos). STEL / VLA-EC: 104 mg/m <sup>3</sup> (15 minutos). TWA / VLA-ED: 20 ppm (8 horas) TWA / VLA-ED: 52 mg/m <sup>3</sup> (8 horas) Piel

Component	Italy	Germany	Portugal	The Netherlands	Finland
Ethylene glycol	TWA: 20 ppm 8 ore. TWA: 52 mg/m <sup>3</sup> 8 ore. STEL: 40 ppm 15 minuti. Breve termine STEL: 104 mg/m <sup>3</sup> 15 minuti. Breve termine Pelle	TWA: 10 ppm (8 Stunden). AGW - exposure factor 2 TWA: 26 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 10 ppm (8 Stunden). MAK TWA: 26 mg/m <sup>3</sup> (8 Stunden). MAK Höhepunkt: 20 ppm Höhepunkt: 52 mg/m <sup>3</sup> Haut	STEL: 40 ppm 15 minutos STEL: 104 mg/m <sup>3</sup> 15 minutos Ceiling: 100 mg/m <sup>3</sup> TWA: 20 ppm 8 horas TWA: 52 mg/m <sup>3</sup> 8 horas Pele	huid STEL: 104 mg/m <sup>3</sup> 15 minuten TWA: 52 mg/m <sup>3</sup> 8 uren TWA: 10 mg/m <sup>3</sup> 8 uren	TWA: 20 ppm 8 tunteina TWA: 50 mg/m <sup>3</sup> 8 tunteina STEL: 40 ppm 15 minuutteina STEL: 100 mg/m <sup>3</sup> 15 minuutteina Iho

Component	Austria	Denmark	Switzerland	Poland	Norway
Ethylene glycol	Haut MAK-KZW: 20 ppm 15 Minuten MAK-KZW: 52 mg/m <sup>3</sup> 15 Minuten MAK-TMW: 10 ppm 8 Stunden MAK-TMW: 26 mg/m <sup>3</sup> 8 Stunden	TWA: 10 ppm 8 timer TWA: 26 mg/m <sup>3</sup> 8 timer TWA: 10 mg/m <sup>3</sup> 8 timer Hud	Haut/Peau STEL: 20 ppm 15 Minuten STEL: 52 mg/m <sup>3</sup> 15 Minuten TWA: 10 ppm 8 Stunden TWA: 26 mg/m <sup>3</sup> 8 Stunden	STEL: 50 mg/m <sup>3</sup> 15 minutach TWA: 15 mg/m <sup>3</sup> 8 godzinach	TWA: 10 mg/m <sup>3</sup> 8 timer TWA: 20 ppm 8 timer TWA: 52 mg/m <sup>3</sup> 8 timer STEL: 104 mg/m <sup>3</sup> 15 minutter. Norm is based on the sum calculation for the total gas and particulate form of the substance dust STEL: 40 ppm 15 minutter. Norm is based on the sum calculation for the total gas and particulate form of the substance Hud Ceiling: 25 ppm

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Ethylene glycol	TWA: 52 mg/m <sup>3</sup> TWA: 20 ppm STEL : 40 ppm	kože TWA-GVI: 20 ppm 8 satima.	TWA: 10 mg/m <sup>3</sup> 8 hr. particulate TWA: 20 ppm 8 hr.	Skin-potential for cutaneous absorption STEL: 40 ppm	TWA: 50 mg/m <sup>3</sup> 8 hodinách. Potential for cutaneous

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	STEL : 104 mg/m <sup>3</sup> Skin notation	TWA-GVI: 52 mg/m <sup>3</sup> 8 satima. STEL-KGVI: 40 ppm 15 minutama. STEL-KGVI: 104 mg/m <sup>3</sup> 15 minutama.	vapour TWA: 52 mg/m <sup>3</sup> 8 hr. vapour STEL: 40 ppm 15 min STEL: 104 mg/m <sup>3</sup> 15 min Skin	STEL: 104 mg/m <sup>3</sup> TWA: 20 ppm TWA: 52 mg/m <sup>3</sup>	absorption Ceiling: 100 mg/m <sup>3</sup>
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Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Ethylene glycol	Nahk TWA: 20 ppm 8 tundides. total concentration of aerosol and vapor TWA: 52 mg/m <sup>3</sup> 8 tundides. total concentration of aerosol and vapor STEL: 40 ppm 15 minutites. total concentration of aerosol and vapor STEL: 104 mg/m <sup>3</sup> 15 minutites. total concentration of aerosol and vapor	Skin notation TWA: 20 ppm 8 hr TWA: 52 mg/m <sup>3</sup> 8 hr STEL: 40 ppm 15 min STEL: 104 mg/m <sup>3</sup> 15 min	STEL: 50 ppm STEL: 125 mg/m <sup>3</sup> TWA: 50 ppm TWA: 125 mg/m <sup>3</sup>	STEL: 104 mg/m <sup>3</sup> 15 percekben. CK TWA: 52 mg/m <sup>3</sup> 8 órában. AK lehetséges boríon keresztüli felszívódás	STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> TWA: 10 ppm 8 klukkustundum. regulated under Glycol aerosol TWA: 26 mg/m <sup>3</sup> 8 klukkustundum. regulated under Glycol aerosol Skin notation Ceiling: 20 ppm regulated under Glycol aerosol Ceiling: 52 mg/m <sup>3</sup> regulated under Glycol aerosol

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Ethylene glycol	skin - potential for cutaneous exposure STEL: 40 ppm STEL: 104 mg/m <sup>3</sup> TWA: 20 ppm TWA: 52 mg/m <sup>3</sup>	TWA: 10 ppm aerosol and vapor IPRD TWA: 25 mg/m <sup>3</sup> aerosol and vapor IPRD Oda STEL: 20 ppm STEL: 50 mg/m <sup>3</sup>	Possibility of significant uptake through the skin TWA: 20 ppm 8 Stunden TWA: 52 mg/m <sup>3</sup> 8 Stunden STEL: 40 ppm 15 Minuten STEL: 104 mg/m <sup>3</sup> 15 Minuten	possibility of significant uptake through the skin TWA: 20 ppm TWA: 52 mg/m <sup>3</sup> STEL: 40 ppm 15 minuti STEL: 104 mg/m <sup>3</sup> 15 minuti	Skin notation TWA: 20 ppm 8 ore TWA: 52 mg/m <sup>3</sup> 8 ore STEL: 40 ppm 15 minute STEL: 104 mg/m <sup>3</sup> 15 minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Ethylene glycol	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup> aerosol and vapor	Ceiling: 104 mg/m <sup>3</sup> Potential for cutaneous absorption TWA: 20 ppm TWA: 52 mg/m <sup>3</sup>	TWA: 20 ppm 8 urah TWA: 52 mg/m <sup>3</sup> 8 urah Koža STEL: 40 ppm 15 minutah STEL: 104 mg/m <sup>3</sup> 15 minutah	STV: 20 ppm 15 minuter aerosol and vapor STV: 50 mg/m <sup>3</sup> 15 minuter aerosol and vapor LLV: 10 ppm 8 timmar. aerosol and vapor LLV: 25 mg/m <sup>3</sup> 8 timmar. aerosol and vapor Hud	Deri TWA: 20 ppm 8 saat TWA: 52 mg/m <sup>3</sup> 8 saat STEL: 40 ppm 15 dakika STEL: 104 mg/m <sup>3</sup> 15 dakika

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

**Derived No Effect Level (DNEL)** No information available

<u>Route of exposure</u>	<b>Acute effects (local)</b>	<b>Acute effects (systemic)</b>	<b>Chronic effects (local)</b>	<b>Chronic effects (systemic)</b>
Oral				

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Dermal  
Inhalation

**Predicted No Effect Concentration (PNEC)** No information available.

## 8.2. Exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

#### Eye Protection

Safety glasses with side-shields (European standard - EN 166)

#### Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Viton (R)	See manufacturers recommendations	-	EN 374	(minimum requirement)

#### Skin and body protection

Long sleeved clothing

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

#### Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

#### Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Recommended Filter type:** Organic gases and vapours filter Type A Brown conforming to EN14387

#### Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

When RPE is used a face piece Fit Test should be conducted

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### Appearance

Colorless

#### Physical State

viscous liquid

#### Odor

Odorless

#### Odor Threshold

No data available

#### pH

5.5-7.5

50% aq. sol

#### Melting Point/Range

-13 °C / 8.6 °F

#### Softening Point

No data available

#### Boiling Point/Range

196 - 198 °C / 384.8 - 388.4 °F @ 760 mmHg

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<b>Flash Point</b>	116 °C / 240.8 °F	<b>Method</b> - No information available
<b>Evaporation Rate</b>	No information available	
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	<b>Lower</b> 3.2 vol % <b>Upper</b> 28 vol %	
<b>Vapor Pressure</b>	0.12 mmHg @ 20 °C	
<b>Vapor Density</b>	2.14 (Air = 1.0)	(Air = 1.0)
<b>Specific Gravity / Density</b>	1.113	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Water Solubility</b>	Miscible	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Ethylene glycol	-1.93	
<b>Autoignition Temperature</b>	413 °C / 775.4 °F	
<b>Decomposition Temperature</b>	> 500°C	
<b>Viscosity</b>	21 cP (20°C)	
<b>Explosive Properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	

## 9.2. Other information

<b>Molecular Formula</b>	C2 H6 O2
<b>Molecular Weight</b>	62.06

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known, based on information available

### 10.2. Chemical stability

Hygroscopic

### 10.3. Possibility of hazardous reactions

#### Hazardous Polymerization

#### Hazardous Reactions

Hazardous polymerization does not occur.  
None under normal processing.

### 10.4. Conditions to avoid

Incompatible products. Excess heat. Exposure to moist air or water.

### 10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases. Aldehydes.

### 10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Product Information

#### (a) acute toxicity;

Oral

Category 4

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethylene glycol	7712 mg/kg ( Rat )	9530 µL/kg ( Rabbit ) 10600 mg/kg ( Rat )	

#### (b) skin corrosion/irritation;

Based on available data, the classification criteria are not met

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- (c) **serious eye damage/irritation;** Based on available data, the classification criteria are not met
- (d) **respiratory or skin sensitization;**  
**Respiratory** Based on available data, the classification criteria are not met  
**Skin** Based on available data, the classification criteria are not met
- (e) **germ cell mutagenicity;** Based on available data, the classification criteria are not met
- (f) **carcinogenicity;** Based on available data, the classification criteria are not met  
 There are no known carcinogenic chemicals in this product
- (g) **reproductive toxicity;** Based on available data, the classification criteria are not met
- (h) **STOT-single exposure;** Based on available data, the classification criteria are not met
- (i) **STOT-repeated exposure;** Category 2  
**Target Organs** Central nervous system (CNS), Liver, Kidney.
- (j) **aspiration hazard;** Based on available data, the classification criteria are not met
- Symptoms / effects,both acute and delayed** No information available

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity effects

Do not empty into drains.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Ethylene glycol	16000 mg/L LC50 96 h 40000 - 60000 mg/L LC50 96 h 40761 mg/L LC50 96 h 27540 mg/L LC50 96 h 14 - 18 mL/L LC50 96 h 41000 mg/L LC50 96 h	46300 mg/L EC50 = 48 h	6500 - 13000 mg/L EC50 96 h	

### 12.2. Persistence and degradability

#### Persistence

Readily biodegradable

Miscible with water, Persistence is unlikely, based on information available.

### 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Ethylene glycol	-1.93	No data available

### 12.4. Mobility in soil

The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

### 12.5. Results of PBT and vPvB assessment

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

### 12.6. Other adverse effects

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

#### Persistent Organic Pollutant

This product does not contain any known or suspected substance

#### Ozone Depletion Potential

This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS



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## 13.1. Waste treatment methods

### Waste from Residues / Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

### European Waste Catalogue (EWC)

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

### Other Information

Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

Not regulated

#### 14.1. UN number

#### 14.2. UN proper shipping name

#### 14.3. Transport hazard class(es)

#### 14.4. Packing group

### ADR

Not regulated

#### 14.1. UN number

#### 14.2. UN proper shipping name

#### 14.3. Transport hazard class(es)

#### 14.4. Packing group

### IATA

Not regulated

#### 14.1. UN number

#### 14.2. UN proper shipping name

#### 14.3. Transport hazard class(es)

#### 14.4. Packing group

#### 14.5. Environmental hazards

No hazards identified

#### 14.6. Special precautions for user

No special precautions required

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Inventories

X = listed

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Ethylene glycol	203-473-3	-		X	X	-	X	X	X	X	X

#### National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Ethylene glycol	WGK 1	

Component	France - INRS (Tables of occupational diseases)
Ethylene glycol	Tableaux des maladies professionnelles (TMP) - RG 84

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

Take note of Dir 94/33/EC on the protection of young people at work

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Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

## SECTION 16: OTHER INFORMATION

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

R22 - Harmful if swallowed

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

H302 - Harmful if swallowed

H373 - May cause damage to organs through prolonged or repeated exposure

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

### Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**PNEC** - Predicted No Effect Concentration

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - Volatile Organic Compounds

### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

**Creation Date** 02-Feb-2010

**Revision Date** 01-Apr-2015

**Revision Summary** Update to Format.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

### Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

# SAFETY DATA SHEET

Ethylene glycol

Revision Date 01-Apr-2015

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**End of Safety Data Sheet**