

## Safety Data Sheet

# ETHYLENE GLYCOL

Version 1.13

Revision Date: 11/17/2022

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** : ETHYLENE GLYCOL

#### Recommended use of the chemical and restrictions on use

Recommended use : Industrial chemical

#### Manufacturer or supplier's details

**Company** : Univar Solutions USA, Inc.  
**Address** : 3075 Highland Pkwy Suite 200  
Downers Grove, IL 60515  
United States of America (USA)

#### Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300)  
CHEMTREC INTERNATIONAL Tel # 703-527-3887

**Additional Information:** : Responsible Party: Product Compliance Department  
E-mail: SDSNA@univarsolutions.com  
SDS Requests: 1-855-429-2661  
Website: www.univarsolutions.com

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Oral) : Category 4

Specific target organ toxicity  
- repeated exposure : Category 2 (Kidney)

#### GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H302 Harmful if swallowed.  
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements : **Prevention:**  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
**Response:**  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  
P314 Get medical advice/ attention if you feel unwell.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste dis-

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posal plant.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

**Hazardous components**

CAS-No.	Chemical name	Weight percent
107-21-1	Ethylene glycol	90 - 100
111-46-6	Diethylene glycol	0 - 5

Any Concentration shown as a range is due to batch variation.

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and water.  
Wash clothing before reuse.  
If skin irritation persists, call a physician.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.  
Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Take victim immediately to hospital.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Foam  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)

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Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon oxides toxic fumes
Further information	: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Advice on safe handling	: Do not breathe vapours/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

CAS-No.	Components	Value type (Form of	Control parameters / Permissible	Basis

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		exposure)	concentration	
107-21-1	Ethylene glycol	C	50 ppm 125 mg/m <sup>3</sup>	OSHA P0
		C	100 mg/m <sup>3</sup>	ACGIH
		TWA (Vapour)	25 ppm	ACGIH
		STEL (Vapour)	50 ppm	ACGIH
		STEL (Inhala- ble fraction, Aerosol only)	10 mg/m <sup>3</sup>	ACGIH
		C (Vapour)	40 ppm 100 mg/m <sup>3</sup>	CAL PEL
111-46-6	Diethylene glycol	TWA	10 mg/m <sup>3</sup>	US WEEL

#### Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

#### Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear, colorless

Odour : sweet, slight

Odour Threshold : No data available

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pH	: No data available
Freezing Point (Melting point/freezing point)	: -13 - -11.2 °C (9 - 11.8 °F)
Boiling Point (Boiling point/boiling range)	: 197.4 °C (387.3 °F)
Flash point	: 111 - 116 °C (232 - 241 °F) Method: closed cup
Evaporation rate	: 0.01 (Butyl Acetate = 1)
Flammability (solid, gas)	: No data available
Upper explosion limit	: 22 %(V)
Lower explosion limit	: 1.8 %(V)
Vapour pressure	: < 1 hPa @ 20 - 25 °C (68 - 77 °F)
Relative vapour density	: < 2.14 @ 20 - 25 °C (68 - 77 °F) (Air = 1.0)
Relative density	: 1.115 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: 1.11 g/cm <sup>3</sup> @ 20 °C (68 °F)
Solubility(ies) Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: -1.36
Auto-ignition temperature	: 398 °C
Thermal decomposition	: No data available
Viscosity Viscosity, dynamic	: 19.83 - 21 mPa.s @ 20 - 25 °C (68 - 77 °F)
Viscosity, kinematic	: 145 mm <sup>2</sup> /s @ 25 °C (77 °F)

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No dangerous reaction known under conditions of normal use.

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Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No hazards to be specially mentioned.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: Strong bases Strong oxidizing agents Strong acids Aldehydes Aluminium Plastics Reducing agents Peroxides
Hazardous decomposition products	: Aldehydes Ketones Organic acids Carbon oxides

## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Product:

Acute oral toxicity : Acute toxicity estimate: 489.08 mg/kg

#### Components:

##### **107-21-1:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

##### **111-46-6:**

Acute oral toxicity : LD50 (Human): Calculated 1,120 mg/kg  
Assessment: The component/mixture is moderately toxic after single ingestion.

### Carcinogenicity

#### 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.

#### OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

#### NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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**STOT - repeated exposure****Components:****107-21-1:**

Target Organs: Kidney

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

**Further information****Product:**

Remarks: No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects****Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.  
For assistance with your waste management needs - including

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disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

### SECTION 14. TRANSPORT INFORMATION

#### DOT (Department of Transportation):

UN3082, Environmentally hazardous substances, liquid, n.o.s., (ETHYLENE GLYCOL), 9, III

IATA (International Air Transport Association): Not regulated as a dangerous good

IMDG-Code: Not regulated as a dangerous good

**Special Notes:** : This material is shipped as a Class 9, Packing Group III when each package meets or exceeds the reportable quantity, otherwise it may be shipped as not regulated.

### SECTION 15. REGULATORY INFORMATION

WHMIS Classification : : Not controlled.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Ethylene glycol	107-21-1	5000	5000
1,4-Dioxane	123-91-1	100	111234

##### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute toxicity (any route of exposure)  
Specific target organ toxicity (single or repeated exposure)

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

107-21-1 Ethylene glycol

##### Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):



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107-21-1 Ethylene glycol

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489):

107-21-1 Ethylene glycol  
111-46-6 Diethylene glycol

### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

75-07-0 Acetaldehyde

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

75-07-0 Acetaldehyde

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307


### Massachusetts Right To Know

107-21-1 Ethylene glycol  
123-91-1 1,4-Dioxane  
75-07-0 Acetaldehyde

### Pennsylvania Right To Know

107-21-1 Ethylene glycol  
111-46-6 Diethylene glycol  
123-91-1 1,4-Dioxane  
75-07-0 Acetaldehyde

### California Prop 65

 **WARNING:** This product can expose you to chemicals including 1,4-Dioxane, Acetaldehyde, which is/are known to the State of California to cause cancer, and Ethylene glycol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory  
DSL : All components of this product are on the Canadian DSL  
AICS : On the inventory, or in compliance with the inventory  
NZIoC : On the inventory, or in compliance with the inventory  
ENCS : On the inventory, or in compliance with the inventory  
KECI : On the inventory, or in compliance with the inventory  
PHIL : On the inventory, or in compliance with the inventory  
IECSC : On the inventory, or in compliance with the inventory

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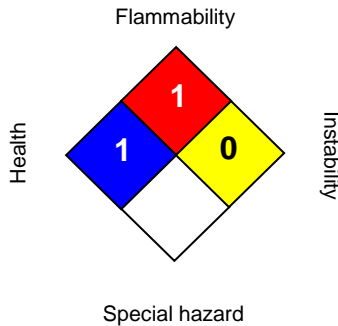
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### SECTION 16. OTHER INFORMATION

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>1*</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

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**Legacy SDS:** : R0000003

**Material number:**

16202965, 16193145, 16189599, 16186827, 16186690, 16184842, 16184845, 16177859, 16176884, 16174621, 16180818, 16170817, 16168889, 16168166, 16171113, 16172870, 16172917, 16163452, 16158593, 16151256, 16151226, 16145702, 16144747, 16144744, 16165888, 16138739, 16147189, 16137492, 16157140, 16146750, 16157069, 16146636, 16143997, 16136544, 16144139, 16145585, 16145582, 16144545, 16159015, 16158961, 16140174, 16140598, 16142534, 16142076, 16142365, 16134560, 16134526, 16141537, 16142192, 16132249, 16131855, 16129552, 16126165, 16114211, 16112352, 16105892, 16103638, 16086745, 16074387, 16072954, 16062967, 16062968, 16062969, 16062427, 16056075, 16056074, 16055096, 16051591, 16045661, 16041542, 16037771, 16037563, 16034406, 16033659, 16033181, 102641, 16030354, 16013884, 16013560, 16012467, 16012189, 16004457, 775747, 768004, 736726, 736570, 729076, 721550, 714457, 714015, 714153, 666370, 611623, 598441, 594558, 86147, 87305, 559851, 554069, 554044

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level

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DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		