

Safety Data Sheet

Ethylene glycol

Version 1.11

Revision Date: 09/01/2019

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 : Category 2 (Kidney)
- repeated exposure

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.

Synonyms : Ethylene glycol Industrial/Ethylene glycol Meglobal/Glycol/Solv Ethylene glycol,

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

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Carbon dioxide (CO2)

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

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CAS-No.	Components	Value type (Form of exposure)	Control param- eters / Permissible concentration	Basis
107-21-1	Ethylene glycol	C	50 ppm 125 mg/m ³	OSHA P0
		C	100 mg/m ³	ACGIH
		C (Aerosol only)	100 mg/m ³	ACGIH
111-46-6	Diethylene glycol	TWA	10 mg/m ³	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

pH : 9

Freezing Point (Melting) : -13 - -11.2 °C (9 - 11.8 °F)

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point/freezing point)

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/cm3 @ 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 mm2/s @ 25 °C (77 °F)

SECTION 10. STABILITY AND REACTIVITY

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

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No hazards to be specially mentioned.

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Conditions to avoid : Keep away from heat, flame, sparks and other ignition sources.

Incompatible materials : Strong bases
Strong oxidizing agents
Strong acids
Aldehydes
Aluminum
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: 493.91 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

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

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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.

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

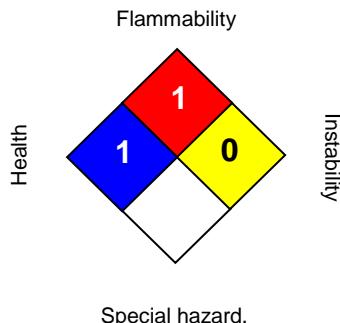
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SECTION16. OTHER INFORMATION

NFPA:

HMIS III:

HEALTH	1*
FLAMMABILITY	1
PHYSICAL HAZARD	0

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:

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, 554070, 554370, 554327, 554244, 554232, 554141, 554097, 554067, 554068, 105297, 103280, 102638, 101896, 88915, 87858, 86506, 86256, 72718, 71481, 70931, 70647, 70642, 70518, 70210, 56154, 55100, 54253, 53829, 508796, 508585, 508339, 508338, 53748, 87014, 69879, 53391, 103693, 85514, 144460, 86148, 54548, 86509, 502712, 29968, 20006, 20002

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
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency

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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%		