

**Safety Data Sheet**  
**Ethylene glycol**

Version 1.9

Revision Date: 07/10/2017

**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** : Nexeo Solutions, LLC.  
**Address** : 3 Waterway Square Place Suite 1000  
The Woodlands, TX. 77380  
United States of America

**Emergency telephone number:**

Health North America: 1-855-NEXEO4U (1-855-639-3648)

Health International: 1-855-NEXEO4U (1-855-639-3648)

Transport North America: CHEMTREC (1-800-424-9300)

**Additional Information:** : Responsible Party: Product Safety Group  
E-Mail: msds@nexeosolutions.com  
SDS Requests: 1-855-429-2661  
SDS Requests Fax: 1-281-500-2370  
Website: www.nexeosolutions.com

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Acute toxicity (Oral) : Category 4

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

**GHS Label element**

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 or doctor/ physician if you feel unwell. Rinse mouth.  
P314 Get medical advice/ attention if you feel unwell.

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**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

**Hazardous components**

CAS-No.	Chemical Name	Weight %
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

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

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#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
107-21-1	Ethylene glycol	C	50 ppm 125 mg/m <sup>3</sup>	OSHA P0
		C	100 mg/m <sup>3</sup>	ACGIH
		C (Aerosol only)	100 mg/m <sup>3</sup>	ACGIH
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	: 9
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 °C (232 °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: 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 identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

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

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by NTP.

**ACGIH**

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

**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.

**111-46-6:**

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

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**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

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

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	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

**SARA 311/312 Hazards** : Immediate (Acute) Health Hazard  
 Chronic (Delayed) Health Hazard

**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

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#### Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

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

#### US State Regulations

##### Massachusetts Right To Know

107-21-1	Ethylene glycol	90 - 100 %
123-91-1	1,4-Dioxane	0 - 0.1 %
75-07-0	Acetaldehyde	0 - 0.1 %

##### Pennsylvania Right To Know

107-21-1	Ethylene glycol	90 - 100 %
111-46-6	Diethylene glycol	5 - 10 %
123-91-1	1,4-Dioxane	0 - 0.1 %
75-07-0	Acetaldehyde	0 - 0.1 %

##### New Jersey Right To Know

107-21-1	Ethylene glycol	90 - 100 %
111-46-6	Diethylene glycol	5 - 10 %

##### California Prop 65

	WARNING! This product contains a chemical known to the State of California to cause cancer.
123-91-1	1,4-Dioxane
75-07-0	Acetaldehyde
	WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
107-21-1	Ethylene glycol

#### 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

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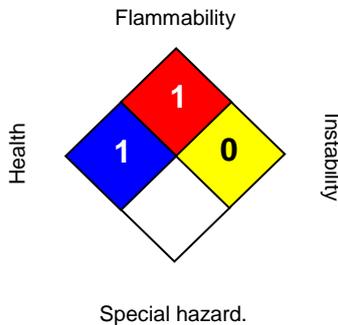
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KECI : On the inventory, or in compliance with the inventory  
 PHIL : On the inventory, or in compliance with the inventory  
 IECSC : On the inventory, or in compliance with the inventory

**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 MSDS has been prepared by NEXEO™ Solutions EHS Product Safety Department (1-855-429-2661) MSDS@nexeosolutions.com.

**Revision Date** : 07/10/2017

**Legacy SDS:** : R0000003

**Material number:**

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, 24453, 22235, 20005, 20004, 20003, 506082

**Key or legend to abbreviations and acronyms used in the safety data sheet**

ACGIH	American Conference of Gov-	LD50	Lethal Dose 50%
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	ernment Industrial Hygienists		
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
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%