

# 1000 ppm Glycols in Acetonitrile

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 19/12/2017

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Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : 1000 ppm Glycols in Acetonitrile  
Product code : AL0-130218  
Product group : Trade product

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

##### 1.2.1. Relevant identified uses

Main use category : Laboratory Use  
Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

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

Phenova  
6390 Joyce Dr. Suite 100  
80403 Golden, CO - United States  
T 1-866-942-2978 - F 1-866-283-0269  
[info@phenova.com](mailto:info@phenova.com) - [www.phenova.com](http://www.phenova.com)

#### 1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924  
ChemTel Assistance (International) +1 813-248-0585

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2	H225
Acute Tox. 4 (Oral)	H302
Acute Tox. 3 (Dermal)	H311
Acute Tox. 4 (Inhalation)	H332
Eye Irrit. 2	H319

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11  
Xn; R20/21/22  
Xi; R36

Full text of R-phrases: see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02



GHS06

Signal word (CLP) : Danger  
Hazardous ingredients : Diethylene glycol; methanol; acetonitrile  
Hazard statements (CLP) : H225 - Highly flammable liquid and vapor  
H302+H332 - Harmful if swallowed or if inhaled

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Precautionary statements (CLP)	H311 - Toxic in contact with skin
	H319 - Causes serious eye irritation
	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
	P233 - Keep container tightly closed
	P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
	P270 - Do not eat, drink or smoke when using this product
	P271 - Use only outdoors or in a well-ventilated area
	P280 - Wear protective gloves/protective clothing/eye protection/face protection
	P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
	P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water
	P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
	P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
	P308+P313 - IF exposed or concerned: Get medical advice/attention
	P337+P313 - If eye irritation persists: Get medical advice/attention
	P361+P364 - Take off immediately all contaminated clothing and wash it before reuse
	P370+P378 - In case of fire: Use media other than water to extinguish
	P403+P235 - Store in a well-ventilated place. Keep cool
	P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

No labeling applicable

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
acetonitrile	(CAS No) 75-05-8 (EC-No.) 200-835-2 (EC index no) 608-001-00-3	99.3	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319
Diethylene glycol (Component)	(CAS No) 111-46-6 (EC-No.) 203-872-2 (EC index no) 603-140-00-6	0.1	Acute Tox. 4 (Oral), H302 Acute Tox. 1 (Dermal), H310
ethylene glycol (Component) substance with a Community workplace exposure limit	(CAS No) 107-21-1 (EC-No.) 203-473-3 (EC index no) 603-027-00-1	0.1	Acute Tox. 4 (Oral), H302
methanol (Component)	(CAS No) 67-56-1 (EC-No.) 200-659-6 (EC index no) 603-001-00-X	0.1	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

Name	Product identifier	Specific concentration limits
methanol (Component)	(CAS No) 67-56-1 (EC-No.) 200-659-6 (EC index no) 603-001-00-X	( 3 =<C < 10) STOT SE 2, H371 (C >= 10) STOT SE 1, H370

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/effects after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
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Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.  
Unsuitable extinguishing media : Do not use a heavy water stream.

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

Fire hazard : Highly flammable liquid and vapor.  
Explosion hazard : May form flammable/explosive vapor-air mixture.

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

Methods for cleaning up : Take up in absorbent material. Collect spillage.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.  
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools.  
Hygiene measures : Do not eat, drink or smoke when using this product. Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

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

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.  
Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.  
Incompatible materials : Direct sunlight. Heat sources.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Diethylene glycol (111-46-6)		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
ethylene glycol (107-21-1)		
EU	IOELV TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)

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<b>ethylene glycol (107-21-1)</b>		
EU	IOELV STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (Ethylèneglycol (en aérosol); Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	20 ppm (Ethylèneglycol (en aérosol); Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (Ethylèneglycol (en aérosol); Belgium; Short time value)
Belgium	Short time value (ppm)	40 ppm (Ethylèneglycol (en aérosol); Belgium; Short time value)
France	VLE (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (Ethylèneglycol (vapeur); France; Short time value; VRI: Valeur réglementaire indicative)
France	VLE (ppm)	40 ppm (Ethylèneglycol (vapeur); France; Short time value; VRI: Valeur réglementaire indicative)
France	VME (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (Ethylèneglycol (vapeur); France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
France	VME (ppm)	20 ppm (Ethylèneglycol (vapeur); France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative)
Italy - Portugal - USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (Ethaan-1,2-diol (damp); Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value; damp; Ethaan-1,2-diol (druppels); 10 mg/m <sup>3</sup> ; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value; druppels)
Netherlands	Grenswaarde TGG 8H (ppm)	20 ppm (Ethaan-1,2-diol (damp); Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value; damp; Ethaan-1,2-diol (druppels); 3.9 ppm; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value; druppels)
Netherlands	Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (Ethaan-1,2-diol (damp); Netherlands; Short time value; Public occupational exposure limit value; damp)
Netherlands	Grenswaarde TGG 15MIN (ppm)	40 ppm (Ethaan-1,2-diol (damp); Netherlands; Short time value; Public occupational exposure limit value; damp)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m <sup>3</sup> ; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
<b>methanol (67-56-1)</b>		
EU	IOELV TWA (mg/m <sup>3</sup> )	260 mg/m <sup>3</sup> (Methanol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	200 ppm (Methanol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m <sup>3</sup> )	266 mg/m <sup>3</sup> (Alcool méthylique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	200 ppm (Alcool méthylique; Belgium; Time-weighted average exposure limit 8 h)

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<b>methanol (67-56-1)</b>		
Belgium	Short time value (mg/m <sup>3</sup> )	333 mg/m <sup>3</sup> (Alcool méthylique; Belgium; Short time value)
Belgium	Short time value (ppm)	250 ppm (Alcool méthylique; Belgium; Short time value)
France	VLE (mg/m <sup>3</sup> )	1300 mg/m <sup>3</sup> (Methanol; France; Short time value; VL: Valeur non réglementaire indicative)
France	VLE (ppm)	1000 ppm (Methanol; France; Short time value; VL: Valeur non réglementaire indicative)
France	VME (mg/m <sup>3</sup> )	260 mg/m <sup>3</sup> (Methanol; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	200 ppm (Methanol; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	250 ppm (Methanol; USA; Short time value; TLV - Adopted Value)
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	133 mg/m <sup>3</sup> (Methanol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	100 ppm (Methanol; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	266 mg/m <sup>3</sup> Methanol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	200 ppm Methanol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	333 mg/m <sup>3</sup> Methanol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	250 ppm Methanol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
<b>acetonitrile (75-05-8)</b>		
EU	IOELV TWA (mg/m <sup>3</sup> )	70 mg/m <sup>3</sup> (Acetonitrile; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	40 ppm (Acetonitrile; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m <sup>3</sup> )	34 mg/m <sup>3</sup> (Acétonitrile; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	20 ppm (Acétonitrile; Belgium; Time-weighted average exposure limit 8 h)
France	VME (mg/m <sup>3</sup> )	70 mg/m <sup>3</sup> (Acétonitrile; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	40 ppm (Acétonitrile; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20 ppm (Acetonitrile; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	34 mg/m <sup>3</sup> (Acetonitril; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
Netherlands	Grenswaarde TGG 8H (ppm)	20 ppm (Acetonitril; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	68 mg/m <sup>3</sup> Acetonitrile; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	40 ppm Acetonitrile; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	102 mg/m <sup>3</sup> Acetonitrile; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)

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<b>acetonitrile (75-05-8)</b>		
United Kingdom	WEL STEL (ppm)	60 ppm Acetonitrile; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)

### 8.2. Exposure controls

- Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.
- Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.



- Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.
- Eye protection : Chemical goggles or safety glasses. Safety glasses.
- Skin and body protection : Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.
- Respiratory protection : Wear appropriate mask.
- Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

- Physical state : Liquid
- Color : Colorless.
- Odor : characteristic.
- pH : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : Highly flammable liquid and vapor
- Relative density : No data available
- Solubility : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Explosion limits : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

- Acute toxicity : Oral: Harmful if swallowed. Dermal: Toxic in contact with skin. Inhalation: Harmful if inhaled.

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<b>1000 ppm Glycols in Acetonitrile</b>	
ATE CLP (oral)	501.002004008 mg/kg body weight
ATE CLP (dermal)	908.5103472136 mg/kg body weight
ATE CLP (gases)	4500 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h
<b>Diethylene glycol (111-46-6)</b>	
LD50 oral rat	12.565 mg/kg
LD50 dermal rabbit	11.89 mg/kg
ATE CLP (oral)	12.565 mg/kg body weight
ATE CLP (dermal)	11.89 mg/kg body weight
<b>ethylene glycol (107-21-1)</b>	
LD50 oral rat	> 5000 mg/kg (Rat; Literature study)
ATE CLP (oral)	500 mg/kg body weight
<b>methanol (67-56-1)</b>	
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	100 mg/kg body weight
ATE CLP (dermal)	300 mg/kg body weight
ATE CLP (gases)	700 ppmV/4h
ATE CLP (vapors)	3 mg/l/4h
ATE CLP (dust, mist)	0.5 mg/l/4h
<b>acetonitrile (75-05-8)</b>	
LD50 oral rat	> 1327 mg/kg (Rat)
LD50 dermal rabbit	980 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	27 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	16000 ppm/4h (Rat)
ATE CLP (oral)	500 mg/kg body weight
ATE CLP (dermal)	980 mg/kg body weight
ATE CLP (gases)	16000 ppmV/4h
ATE CLP (vapors)	11 mg/l/4h
ATE CLP (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Causes serious eye irritation. Based on available data, the classification criteria are not met
Respiratory or skin sensitization	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met May cause cancer
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity – single exposure	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity – repeated exposure	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Harmful in contact with skin.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

<b>ethylene glycol (107-21-1)</b>	
EC50 Daphnia 1	> 10000 mg/l (EC50; 24 h)
LC50 fish 2	40761 mg/l (LC50; 96 h; Salmo gairdneri)
<b>methanol (67-56-1)</b>	
LC50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)
<b>acetonitrile (75-05-8)</b>	
LC50 fish 1	1640 mg/l (LC50; Other; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 1000 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Semi-static system; Fresh water; Experimental value)
Threshold limit algae 1	9696 mg/l (EC50; ISO 10253; 72 h; Phaeodactylum; Static system; Salt water; Experimental value)
Threshold limit algae 2	> 1000 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

#### 12.2. Persistence and degradability

<b>1000 ppm Glycols in Acetonitrile</b>	
Persistence and degradability	Not established.
<b>ethylene glycol (107-21-1)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.47 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.24 g O <sub>2</sub> /g substance
ThOD	1.29 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.36
<b>methanol (67-56-1)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.42 g O <sub>2</sub> /g substance
ThOD	1.5 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.8 (Literature study)
<b>acetonitrile (75-05-8)</b>	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.17 g O <sub>2</sub> /g substance
ThOD	3.12 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.055

#### 12.3. Bioaccumulative potential

<b>1000 ppm Glycols in Acetonitrile</b>	
Bioaccumulative potential	Not established.
<b>ethylene glycol (107-21-1)</b>	
BCF fish 1	10 (BCF; 72 h)
BCF other aquatic organisms 1	0.21 - 0.6 (BCF)
BCF other aquatic organisms 2	190 (BCF; 24 h)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>methanol (67-56-1)</b>	
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>acetonitrile (75-05-8)</b>	
BCF other aquatic organisms 1	3.162 (BCF; BCFWIN)
Log Pow	0.29 (Weight of evidence approach; Equivalent or similar to OECD 107; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).



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### 12.4. Mobility in soil

#### ethylene glycol (107-21-1)

Surface tension : 0.048 N/m (20 °C)

#### methanol (67-56-1)

Surface tension : 0.023 N/m (20 °C)

Log Koc : Koc,PCKOCWIN v1.66; 1; Calculated value

#### acetonitrile (75-05-8)

Surface tension : 0.029 N/m (20 °C)

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : 1992

UN-No. (IATA) : 1992

UN-No. (IMDG) : 1992

UN-No. (ADN) : 1992

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Proper Shipping Name (IATA) : Flammable liquid, toxic, n.o.s.

Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Proper Shipping Name (ADN) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Transport document description (ADR) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II, (D/E)

### 14.3. Packing group

Class (ADR) : 3

Classification code (ADR) : FT1

Class (IATA) : 3

Class (IMDG) : 3

Class (ADN) : 3

Classification code (ADN) : FT1

Subsidiary risks (ADR) : 6.1

Subsidiary risks (IMDG) : 6.1

Hazard labels (ADR) : 3, 6.1



Hazard labels (IATA) : 3, 6.1



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Hazard labels (IMDG) : 3, 6.1



Hazard labels (ADN) : 3, 6.1



### 14.4. Packing group

Packing group (ADR) : II  
Packing group (IATA) : II  
Packing group (IMDG) : II  
Packing group (ADN) : II

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

Hazard identification number (Kemler No.) : 336  
Classification code (ADR) : FT1  
Orange plates :



Special provision (ADR) : 274  
Transport category (ADR) : 2  
Tunnel restriction code (ADR) : D/E  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2

#### 14.6.2. Transport by sea

Special provision (IMDG) : 274  
Limited quantities (IMDG) : 1 L  
Excepted quantities (IMDG) : E2  
Packing instructions (IMDG) : P001  
IBC packing instructions (IMDG) : IBC02  
Tank instructions (IMDG) : T7  
Tank special provisions (IMDG) : TP2, TP13  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-D  
Stowage category (IMDG) : B  
Properties and observations (IMDG) : Flammable toxic liquid which is not specified by name in this class or, on account of its characteristics, in some other class. Toxic if swallowed, by skin contact or by inhalation.

#### 14.6.3. Air transport

CAO packing instructions (IATA) : 364  
CAO max net quantity (IATA) : 60L  
PCA packing instructions (IATA) : 352  
PCA Limited quantities (IATA) : Y341  
PCA limited quantity max net quantity (IATA) : 1L  
PCA max net quantity (IATA) : 1L  
PCA Excepted quantities (IATA) : E2  
Special provision (IATA) : A3  
ERG code (IATA) : 3HP

#### 14.6.4. Inland waterway transport

Special provision (ADN) : 274, 802  
Limited quantities (ADN) : 1 L

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Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP, EX, TOX, A
Ventilation (ADN)	: VE01, VE02
Number of blue cones/lights (ADN)	: 2
Carriage prohibited (ADN)	: No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions  
Contains no REACH candidate substance  
Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

##### Germany

Water hazard class (WGK) : 2 - hazardous to water

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: None.

PHV SDS EU

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