

Product name: Triethylene glycol

Print date: 11.10.2018

Revision date: 11.10.2018

Section 1: Identification of the substance/preparation and of the company/undertaking1.1 Product identifiers

Trade name: Triethylene glycol

Registration number: 01-2119438366-35

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

Relevant identified uses of the substance or mixture:

Commercial use of triethylene glycol
Use in synthetic material transformation, formulation processes,
industrial use, solventsApplication: Solvent for various applications
Lubricants, Plasticizers1.3 Details of the supplier of the safety data sheet

Company: Wittig Umweltchemie GmbH

Carl-Bosch-Str. 17

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Telephone: +49 (0) 2641 - 20510 0

Fax: +49 (0) 2641 - 20510 22

Homepage: www.glysofor.deE-Mail: info@glysofor.deInfo about substance/mixture: Mr. Dirk Wittig, Tel.: +49 (0) 2641 - 20510 0, info@glysofor.de1.4 Emergency telephone

Telephone: +49 (0) 2641 - 20510 0 (Mo. – Fr., 8.00 – 17.00)

Responsible/issuing person: Mr. Dirk Wittig, Tel.: +49 (0) 2641 - 20510 0, info@glysofor.deEmergency information: Poison Center Mainz – 24 hours emergency service
+49 (0) 6131 – 19240**Section 2: Hazards identification**2.1 Classification of the substance or mixture

Classification according to regulation (EG) No. 1272/2008

Not a hazardous substance or mixture according to regulation.

2.2 Label elements

Labeling according to regulation (EG) No. 1272/2008

The product is not subject to classification according to regulation.

2.3 Other hazards

Physico-chemical hazards: See section 10.

Health hazards: No hazards known

Environmental hazards: No hazards known

Other hazards: none

Others: Not classified as hazardous.

R-phrases: none

Section 3: Composition/information on ingredients3.2 Mixtures

Chemical characterization: Triethylene glycol

CAS-No: 112-27-6

EINECS-No: 203-953-2

Chemical name: 2,2'-(Ethylendioxy)diethanol

Component comment: Contain no hazardous components.

Section 4: First aid measures4.1 Description of first aid measures

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General advice: Not expected to present a significant hazard under anticipated conditions of normal use.

If inhaled: Move person to fresh air; if effects occur, consult a physician.

In case of skin contact: Wash skin with plenty of water.

In case of eye contact: Flush eyes thoroughly with water, consult a specialist.

If swallowed: Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No symptoms known.

Hazards: No hazards known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

Section 5: Fire Fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media: SMALL FIRE: Use dry chemicals, CO₂, water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

In case of fire formation of dangerous gases is possible

Carbon monoxide (CO)

Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Special protective equipment for fire-fighters:

Wear self-contained breathing apparatus

Further information: Wear protective clothing.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Risk of slipping due to leaked / spilled product.

Avoid contact with eyes and skin.

Keep unprotected persons away.

6.2 Environmental precautions:

The product is not environmentally hazardous substance.

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

Inform the relevant authorities if the product penetrates the ground.

6.3 Methods and materials for containment and cleaning up:

Absorb with sand, soil or absorbent material and dispose in accordance to local authority guidelines. (see Section 13.)

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling:

Store in unbreakable containers (packaging).

Ensure good ventilation/suction at the workplace.

Avoid formation of aerosols.

Do not inhale aerosol mist.

Do not inhale vapours.

Avoid contact with eyes and skin.

Requirements for storage areas

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and containers: Store in closed containers. Containers must be clean, dry and rust-free.

Advice on protection against

fire and explosion:

No special measures required, general rules for preventive action
Follow operational fire protection.

Keep away from sources of ignition - Do not smoke.

Take measures against electrostatic charging.

Explosion protection Temperature class:

T2 (DIN VDE 0165)

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and containers:

Store only in closed containers.

Containers must be clean, dry and rust-free.

Store in a cool, dry and well-ventilated place.

Observe water regulations.

Information on storage together:

Store away from oxidizing agents.

Do not store together with food or animal feed.

Storage temperature: Storage recommended at -20 to 40 degrees C.

VCI - Storage class:

10 Flammable liquids - TRGS 510 "Storage of hazardous materials in portable containers".

7.3 Specific end uses:

No further information available.

Section 8: Exposure controls/personal protection8.1 Control parameters

Exposure Limits:

TRGS 900

2,2'-(Ethylenedioxy)diethanol

Inhalable fraction

Value: 1000 mg/m³

Peak limitation: 2(II)

Pregnancy group: Y

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DNEL values	Admission path	Effect duration	Effect	Value
(employee)	dermal	long-term (chronic)	systematic	40 mg/kg/day
	inhalative	long-term (chronic))	local	50 mg/m ³

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DNEL values	Admission path	Effect duration	Effect	Value
(consumer)	dermal	long-term (chronic)	systematic	20 mg/kg/day
	inhalative	long-term (chronic)	local	25 mg/m ³

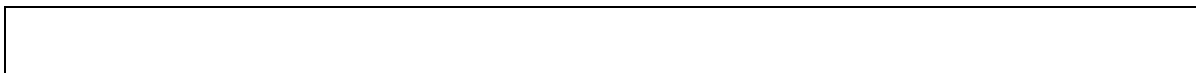
Triethylene glycol CAS 112-27-6 / EG Nr. 203-953-2

PNEC values	Environmental compartment	Type	Value
	Water	Freshwater	10 mg/Ltr.
	Water	Seawater	1 mg/Ltr.
	Water	Freshwater Sediment	46 mg/Ltr.
	Water	AQUA intermittent	10 mg/kg
	Soil	-	3,32 mg/kg
	Sewage plant	-	10 mg/Ltr.

8.2 Exposure controls

Respiratory protection:

Not required



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Hand protection: Protective gloves (DIN EN 374)
Eye protection: Safety glasses (DIN EN 166)
Body protection: Work clothing
General: Do not smoke, eat or drink at work.

Wash your hands before breaks and at the end of work

Section 9: Physical and chemical properties9.1 Information on basic physical and chemical properties

Physical State: Liquid
Color: colorless
Smell: neutral
pH: not determined
pH 1%: not determined
Melting point: -7 °C
Boiling point: 280 - 295 °C
Flashpoint: 177 °C
Ignition temperature: 370 °C
Autoflammability: No
Oxidizing properties: No
Danger of explosion: Product is not explosive, however, formation of explosive vapor / air mixture is possible
Explosion limits: lower: 0,9 Vol%
upper: 9,2 Vol%
Density: 1,12 g/cm³
Solubility in water (20 °C): Any
Viscosity: 47,8 mPas (20 °C)

Section 10: Stability and reactivity

10.1 Reactivity: see Section 10.3
10.2 Chemical stability: Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions:
Reacts with strong alkalis.
Reacts with oxidizing agents.
10.4 Conditions to avoid: not known
10.5 Incompatible materials: not known
10.6 Hazardous decomposition products:
not known

Section 11: Toxicological information:11.1 Information on toxicological effects

Acute toxicity: oral 15000-22000 mg/kg rat
dermal >22000 mg/kg rbt
inhal./8h = above saturation limit
Skin corrosion/irritation: Not irritant.
Eye irritation: slight irritation possible
Sensitization: Non-sensitizing.
Subacute to chronic toxicity: No
Additional toxicological information: No

Section 12: Ecological information

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12.1 Toxicity

Fish (Phimephales promelas), 96 hours, LC50: 69800 mg/Ltr.
Daphnia (Daphnia magna), 48 hours, EC50: >10000 mg/Ltr.
Algae (Scenedesmus quadricauda), 8 days, EC5: >10000 mg/Ltr.
Bacteria (activated sludge), 30 minutes, EC10: >1995 mg/Ltr.

12.2 Persistence and degradability:

Biodegradation data

The product has no negative environmental impact.

It's according to OECD 301E / EEC 84/449 C3 rapidly degradable.

Elimination: > 70% DOC (Zahn-Wellens-Test)

> 99% (21d; mod. Sturm-Test)

Rating: Highly biodegradable.

Technically correct releases of minimal concentrations to adapted biological sewage treatment facility, will not disturb the biodegradability of activated sludge.

12.3 Bioaccumulative potential:

log Pow: -1.75 at 25 degrees C

Bioaccumulation is not expected (log P(o/w)<1)

12.4 Mobility in soil:

Transport and distribution between environmental compartments: not determined

12.5 Results of PBT and vPvB assessment:

No data available

12.6 Other adverse effects:

unknown

General Information:

WGK Water hazard class 1: slightly hazardous for water.

Do not allow to enter the drainage system, surface water or ground water.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Section 13: Disposal considerations13.1 Waste treatment methods

Product:

Recommendation: In accordance with the necessary technical regulations may be incinerated with household waste, after consultation with waste disposal organisation and with the responsible authority.

Waste code number:

According to EAK regulation, the allocation of waste code numbers is to be carried out specific to the industry and the process.

Uncleaned packaging:

Recommendation: Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned. Packagings that cannot be cleaned are to be disposed off in the same manner as the product.

Section 14: Transport informationSection 14.1 to 14.5

ADR non-hazardous

ADN non-hazardous

RID non-hazardous

IATA non-hazardous

IMDG non-hazardous

14.6 Special precautions for user

No specific precaution

14.7 Transportation in bulk according to Annex II of MARPOL73/78 and IBC Code

No transport as bulk according IBC Code

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Section 15: Regulatory information15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EC Classification: Not classified as dangerous under EC criteria.
Labelling: Not classified.
R-phrases: None
S-phrases: None
Notes on employment Restriction: None
Technical instruction air: Not applicable
Water hazard class: 1 slightly water endangering (Classification according VwVwS, Annex 4.)
Volatile organic compounds
VOC content: According to Directive 2004/42 / EC no VOC components (VOC: 0.00%)

15.2 Chemical safety assessment: Chemical safety assessment was not carried out.

Section 16: Other information

Department issuing data specification sheet:

Management

Contact:

Mr. Dirk Wittig, Tel.: +49 (0) 2641 - 20510 0, info@glysofor.de

The information supplied has been based upon the current level of information available. The security data sheet describes products in regard to their safety requirements. The indications do not have the meaning of guarantees on properties.