

Material Safety Data Sheet

according to 1907/2006 EC, Article 31



GENAXXON

b i o s c i e n c e

Product number : M6029

Product name :

Ethylene glycol Pure

1. Identification of the substance/preparation and of the company

Product identifier

Product Name: Ethylene glycol Pure

Catalogue No.: M6029

CAS-No.: 107-21-1

EC-No.: 203-473-3

Index number: 603-027-00-1

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

No further relevant information available.

Application of the substance / the preparation:

Laboratory chemical

Chemical analytics

Chemical for synthesis

Details of the supplier of the safety data sheet

Manufacturer /Supplier:

Genaxxon bioscience GmbH, Söflinger Str. 70, 89077 Ulm/Germany.

Tel.: +49 (0)731 3608 123, info@genaxxon.com

Further information available from: General Management

Emergency telephone number:

Poison Information Centre Mainz, Germany, Tel.: +49 (0)6131 19240 / 24 h

NOTE: If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

Product Use:

This products are for laboratory research use only and are not intended for human or animal diagnostics, therapeutics or other clinical uses.

2. Hazardous identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS07

Acute Tox. 4 H302: Harmful if swallowed

Classification according to EU Directives 67/548/EEC or 1999/45/EC



Xn; Harmful

R22: Harmful if swallowed

Label elements

Labelling according Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictogram(s)



GHS07

Signal word: Warning

Hazard determining components of labelling:

ethanediol

Hazard statement(s)

H302 Harmful if swallowed

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Precautionary statement(s)

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P302 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

3. Composition/Information on Ingredients

Chemical characterisation: Substances

CAS-No. Description

107-21-1 ethanediol

Identification number(s)

EC number: 203-473-3

Index number: 603-027-00-1

4. First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Involve doctor immediately.

After inhalation: Supply fresh air or oxygen; consult a doctor/physician in case of complaints.

After skin contact:

Immediately remove any clothing soiled by the product.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for several minutes under running water.

If symptoms persist, consult a doctor/physician.

After swallowing:

Rinse out mouth.

Make victim drink water (maximum of 2 drinking glasses).

Do not induce vomiting; call for medical help immediately.

Information for doctor

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

Water Spray. Carbon Dioxide. Dry chemical powder, or appropriate foam. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet.

Special hazards arising from the substance or mixture:

Emits toxic fumes under fire conditions: Carbon oxides (CO, CO₂).

Advice for fire-fighters:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Additional information

Dispose off fire debris and contaminated fire fighting water in accordance with official regulations.

Contain escaping vapours with water.

Cool endangered receptacles with water spray.

Further information

no further relevant information available

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid substance contact.
Ensure adequate ventilation.
Wear respiratory protection.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not allow product to reach sewage system or any water course. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

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

7. Handling and storage

Handling

Precautions for safe handling:

Avoid formation of aerosols
Keep receptacle tightly sealed.

Information about fire – and explosion protection: The product is not flammable.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special measures required.

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions:

Store under lock and key and with access restricted to technical experts or their assistants only.
Keep tightly closed.

Recommended storage temperature: 15°C – 25°C

Storage class: 10 - 13

Specific end use(s): No further relevant information available.

8. Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

Control parameters

Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethanediol

WEL() Short-term value: 104 mg/m³, 40 ppm (vapour)
Long-term value: 52 mg/m³, 20 ppm (vapour)
Long-term value: 10 mg/m³ (particulate)

Additional information: The lists valid during the making were used as basis.

Exposure controls

Personal protective equipment

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove spoiled and contaminated clothing. Wash contaminated clothing before reuse.
Wash hands before breaks and the end of work.
Avoid contact with eyes and skin.

Respiratory protection:



Filter A (EN 149)

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Protection of hands:



Protective gloves (EN 374)

The glove material has to be impermeable and resist ant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/the substance/the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for permeation: Level: >480 min.

As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for the permeation: Level ≥ 480 min.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be constructed as offering an approval for any specific use

Eye/face protection:



Safety glasses (EN 166)

Body protection:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

9. Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Fluid
Colour: Colourless
Odour: Sweetish

pH-value at 20°C: 6 – 7.5

Change in conditions

Melting point/Melting range: -13°C
Boiling point/Boiling range: 198°C

Flash point: 111°C

Flammability (solid, gaseous): Not applicable

Ignition temperature: 410°C

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: 3.2 Vol. %
Upper: 15.3 Vol %

Vapour pressure: 0.03 hPa

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Density at 20°C:	1.11 g/cm ³
Relative density:	Not determined
Vapour density:	Not determined
Solubility in / Miscibility with water at 20°C:	1000g/L
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined
Solvent content:	
Organic solvents:	0%
VOC (EC)	0.00%
Other information:	No further relevant information available

10. Stability and reactivity

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: Strong exothermic reactions with acids.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicological information

Information on toxicological effects

Acute toxicity:

LD50/LC50 values relevant for classification

107-21-1 ethanediol

Oral	LD50	>2000mg/kg (rat)
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Primary irritant effect

on the skin: No irritant effect.

on the eye: No irritating effect.

After inhalation: No irritant effect.

Sensitization: No sensitizing effect known.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behaviour in environmental systems:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

Do not allow product to reach ground water, water course, sewage system or soil.

Result of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

Other adverse effects: No further relevant information available.

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13. Disposal considerations

Waste treatment methods

Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Uncleaned packaging: Dispose as unused product

Recommendation: Disposal must be made according to official regulations.

14. Transport information

US-number

ADR/RID, IMDG, IATA Void

UN proper shipping name:

ADR/RID, IMDG, IATA: Void

Transport hazard class(es)

ADR/RID, IMDG, IATA: Void

Packaging group

ADR/RID, IMDG, IATA: Void

Environmental hazards

Marine pollutant: No

Special precautions for user

Not applicable

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable

Transport Additional information:

Not dangerous according to the above specifications

UN "Model Regulation":

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15. Regulatory information

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Genaxxon bioscience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Disclaimer

This product is for R&D use only. Not for drug, household or other uses.

Abbreviations and Acronyms:

ACAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EINECS: European Inventory of Existing Commercial Chemical Substances

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

GHS: Globally Harmonized System of Classification and labeling of Chemicals

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

IMDG: International Maritime code for Dangerous Goods

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

VOC: Volatile Organic Compounds (USA, EU)

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