



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

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

1.1 Product identifier

| | |
|--|--|
| Identification of the substance | Glycerol anhydrous for biochemistry |
| Registration number (REACH) | 01-2119471987-18-xxxx |
| CAS number | 56-81-5 |
| Article number | 1284 |

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

| | |
|---------------------------------|-------------|
| Relevant identified uses | General use |
|---------------------------------|-------------|

1.3 Details of the supplier of the safety data sheet

NeoFroxx GmbH
Marie-Curie-Str. 3
D-64683 Einhausen
Germany

Telephone: +49 (6251) 989 24 - 0
e-mail: info@neofroxx.com
Website: neofroxx.com

e-mail (competent person) info@neofroxx.com (neoFroxx GmbH)

1.4 Emergency telephone number

| Poison centre | | | |
|----------------|--------------------------------------|------------------|-----------|
| Country | Name | Postal code/city | Telephone |
| United Kingdom | National Poisons Information Service | | 111 |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

not required

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

SECTION 3: Composition/information on ingredients

3.1 Substances

| | |
|--------------------------|--|
| Name of substance | Glycerol anhydrous for biochemistry |
| Identifiers | |
| REACH Reg. No | 01-2119471987-18-xxxx |
| CAS No | 56-81-5 |
| EC No | 200-289-5 |
| Molecular formula | C ₃ H ₈ O ₃ |
| Molar mass | 92.09 g/mol |

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

7.2 Conditions for safe storage, including any incompatibilities

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) | | | | | | | | | | | |
|--|---------------|---------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|-----------|
| Country | Name of agent | CAS No | Identifier | TWA [ppm] | TWA [mg/m ³] | STEL [ppm] | STEL [mg/m ³] | Ceiling-C [ppm] | Ceiling-C [mg/m ³] | Notation | Source |
| GB | glycerol | 56-81-5 | WEL | | 10 | | | | | mist | EH40/2005 |

Notation

Ceiling-C ceiling value is a limit value above which exposure should not occur

mist as mists

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours

time-weighted average (unless otherwise specified)

Environmental values

| Relevant PNECs and other threshold levels | | | | |
|---|-----------------|-----------------------|------------------------------|------------------------------|
| Endpoint | Threshold level | Organism | Environmental compartment | Exposure time |
| PNEC | 0.885 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| PNEC | 0.088 mg/l | aquatic organisms | marine water | short-term (single instance) |
| PNEC | 1,000 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| PNEC | 3.3 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| PNEC | 0.33 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| PNEC | 0.141 mg/kg | terrestrial organisms | soil | short-term (single instance) |

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

- Type of material
NBR: acrylonitrile-butadiene rubber
- Material thickness min. 0,11 mm
- Breakthrough times of the glove material
>480 minutes (permeation: level 6)
- Other protection measures
Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|---|
| Physical state | liquid |
| Colour | colourless |
| Odour | odourless |
| Melting point/freezing point | 18.17 °C at 101.3 kPa |
| Boiling point or initial boiling point and boiling range | 290 °C at 760 mmHg |
| Flammability | this material is combustible, but will not ignite readily |
| Lower and upper explosion limit | 2.7 vol% - 19 vol% |
| Flash point | 199 °C at 101.3 kPa |
| Auto-ignition temperature | 370 °C (ECHA) (auto-ignition temperature (liquids and gases)) |
| Decomposition temperature | not relevant |
| pH (value) | not determined |
| Kinematic viscosity | 1,120 mm ² /s at 20 °C |

Solubility(ies)

| | |
|------------------|-------------------------|
| Water solubility | 1,000,000 mg/l at 25 °C |
|------------------|-------------------------|



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

Partition coefficient

| | |
|---|-------------------------------------|
| Partition coefficient n-octanol/water (log value) | -1.75 (pH value: 7.4, 25 °C) (ECHA) |
|---|-------------------------------------|

| | |
|-----------------|---------------------|
| Vapour pressure | 0.003 mmHg at 50 °C |
|-----------------|---------------------|

Density and/or relative density

| | |
|---------|---------------------|
| Density | 1.261 g/ml at 20 °C |
|---------|---------------------|

| | |
|--------------------------|-------------------|
| Particle characteristics | no data available |
|--------------------------|-------------------|

9.2 Other information

| | |
|--|---|
| Information with regard to physical hazard classes | hazard classes acc. to GHS (physical hazards): not relevant |
|--|---|

Other safety characteristics

| | |
|--------------------------------------|--|
| Surface tension | 63.4 mN/m (20 °C) (ECHA) |
| Temperature class (EU, acc. to ATEX) | T2 (maximum permissible surface temperature on the equipment: 300°C) |

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidisers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Classification according to GHS (1272/2008/EC, CLP)

This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Biodegradation

The substance is readily biodegradable. The relevant substances of the mixture are readily biodegradable.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

| | |
|---------------------------|-------------------------------------|
| n-octanol/water (log KOW) | -1.75 (pH value: 7.4, 25 °C) (ECHA) |
|---------------------------|-------------------------------------|



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

Not listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

| | | |
|------|---|---|
| 14.1 | UN number or ID number | not subject to transport regulations |
| 14.2 | UN proper shipping name | not assigned |
| 14.3 | Transport hazard class(es) | none |
| 14.4 | Packing group | not assigned |
| 14.5 | Environmental hazards | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 | Special precautions for user | There is no additional information. |
| 14.7 | Maritime transport in bulk according to IMO instruments | The cargo is not intended to be carried in bulk. |

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

not assigned

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

not listed

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

not listed

Deco-Paint Directive (2004/42/EC)

| | |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

Directive on industrial emissions (VOCs, 2010/75/EU)

| | |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

Water Framework Directive (WFD)

not listed

National inventories

| Country | Inventory | Status |
|---------|------------|---------------------|
| EU | REACH Reg. | substance is listed |
| US | TSCA | substance is listed |

Legend

REACH Reg. REACH registered substances
TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|-----------|---|
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road) |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| Ceiling-C | Ceiling value |
| CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures |



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Glycerol anhydrous for biochemistry

Version number: GHS 2.0
Replaces version of: 2021-02-24 (GHS 1)

Revision: 2021-02-24

| Abbr. | Descriptions of used abbreviations |
|-----------|---|
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EH40/2005 | EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Code |
| NLP | No-Longer Polymer |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| ppm | Parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| STEL | Short-term exposure limit |
| SVHC | Substance of Very High Concern |
| TWA | Time-weighted average |
| VOC | Volatile Organic Compounds |
| vPvB | Very Persistent and very Bioaccumulative |
| WEL | Workplace exposure limit |

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product. The information is intended to give you guidelines for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The information is not transferable to other products. Insofar as the product is mixed, blended or processed with other materials or is subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise.

CERTIFICATE

for a management system as per

DIN EN ISO 9001:2015

Evidence of conformity has been furnished.

neoFroxx
For a greener laboratory

neoFroxx GmbH
Marie-Curie-Straße 3
64683 Einhausen / Germany

scope:

Production and distribution of fine and biochemicals
for cell biology, microbiology and molecular biology
as well as analytics and production

Certificate registration No. **73 100 4957**

Certificate valid from 2021-11-10 to **2024-11-09**

Audit report No. 4383 7126



Deutsche
Akkreditierungsstelle
D-ZM-14137-01-00

Darmstadt, 2021-10-18
Certification body of TÜV Hessen
– Head of Certification body –

CERTIFICATE

for a management system as per

DIN EN ISO 14001:2015

Evidence of conformity has been furnished.

neoFroxx
For a greener laboratory

neoFroxx GmbH
Marie-Curie-Straße 3
64683 Einhausen / Germany

scope:

Production and distribution of fine and biochemicals
for cell biology, microbiology and molecular biology
as well as analytics and production

Certificate registration No. **73 104 4957**

Certificate valid from 2022-01-14 to **2025-01-13**

Audit report No. 4383 7126



Deutsche
Akkreditierungsstelle
D-ZM-14137-01-00

O. Maas

Darmstadt, 2022-01-14
Certification body of TÜV Hessen
– Head of Certification body –

neoFroxx GmbH

Marie-Curie-Str. 3
D-64683 Einhausen

Telefon: +49 (6251) 989 24 - 0
Telefax: +49 (6251) 989 24 - 10

E-Mail: info@neofroxx.com

www.neofroxx.com

Specification

| | |
|----------------|--|
| Product | Glycerol anhydrous for biochemistry |
| Brand | BioFroxx |

| | |
|------------------------|--|
| Product number | 1284 |
| Synonym(s) | 1,2,3-Propanetriol, Trihydroxylpropane, Protol, Glycerin |
| Formula | $C_3H_8O_3$ |
| Molecular weight | 92.10 g/mol |
| CAS number | 56-81-5 |
| Storage | below 25°C |
| Retest period (months) | 60 |

| Parameter | Specification |
|-------------------------|---------------|
| Assay (GC) | min. 99.5 % |
| Organic chlorine | max. 0.0005 % |
| pH (5 M in water, 20°C) | 5.5 - 8.0 |
| Fatty acids | max. 0.02 % |
| Water (K.F.) | max. 0.5 % |
| Chloride | max. 0.001 % |
| Sulfate | max. 0.001 % |
| As | max. 0.0001 % |
| Fe | max. 0.0005 % |
| Pb | max. 0.0001 % |

Einhausen, 23.03.2020