

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 19.08.2015

Version 1

Revision: 19.08.2015

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

- **1.1 Product identifier**
- **Trade name:** Glycamed 99,7%  
glycerol min. 99,5% Eur.Ph. / USP/ FCC / E422
- **CAS Number:**  
56-81-5
- **EC number:**  
200-289-5
- **Registration number** 01-2119471987-18-xxxx
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Exemption in accordance with Regulation (EC) No 1907/2006 Art. 2(7)b, listed in annex V.
- **Application of the substance / the mixture**  
pharmazeutical production, food, industry and analytics
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
GLACONCHEMIE GmbH  
Beunaer Straße 4  
06217 Merseburg  
Tel.: +49 (0) 3461-24 48 0  
Fax: +49 (0) 3461-24 48 99
- **Informing department:**  
Tel.: +49 (0) 3461-24 48 0  
E-Mail: office@glaconchemie.de  
www.glaconchemie.de
- **1.4 Emergency telephone number:**  
Tel.: +49 (0) 3461-24 48 0 (during office time)  
Poison Emergency Call Saxony-Anhalt :  
Tel.: +49 (0) 361-73 07 30

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The substance is not classified according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

- **3.1 Substances**
- **CAS No. Designation:**  
56-81-5 glycerol

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- **Identification number(s):**
- **EC number:** 200-289-5
- **Additonal information:**  
molecular formula:  $C_3H_8O_3$   
molecular mass: 92.10 g/mol

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air.
- **After skin contact** Instantly rinse with water.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
In case of persistent symptoms consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.  
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**  
Combustible. Fumes are heavier than air. Formation of dangerous gases possible in case of fire.  
Forms explosive mixtures with air on intense heating. In the event of a fire, the following may be produced acrolein.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear full protective suit.  
Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
- **Additional information**  
Cool endangered containers with water spray from out of harm's way. Do not allow fire water to penetrate into surface or ground water.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Do not inhale gases / fumes / aerosols.

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- **6.2 Environmental precautions:**  
 Do not allow to enter drainage system, surface or ground water.  
 Danger to drinking water if large volume leak into the ground and waters.
- **6.3 Methods and material for containment and cleaning up:**  
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
 Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.  
 Product is biologically degradable.
- **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 information on disposal.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Further information about storage conditions:**
- **Recommended storage temperature:** 5 - 40 °C
- **Storage class**  
 LGK 10 (VCI-Concept)  
 (German Technical Rule for Hazardous Substance – TRGS 510)
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **8.1 Control parameters**

<b>Components with limit values that require monitoring at the workplace:</b>
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<b>56-81-5 glycerol</b>
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MAK Long-term value: 50 E mg/m <sup>3</sup>
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- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
 The usual precautionary measures should be adhered to general rules for handling chemicals.  
 Take off immediately all contaminated clothing.  
 Wash hands during breaks and at the end of the work.  
 Avoid contact with the eyes and skin.  
 Do not eat, drink or smoke while working.
- **Breathing equipment:**  
 Use breathing protection only when aerosol or mist is formed.  
 Filter A/P2.

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- **Protection of hands:**  
 Protective gloves.  
 The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374.  
 This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.  
 Only use chemical-protective gloves with CE-labelling of category III.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
 Nitrile rubber, NBR  
 Recommended thickness of the material:  $\geq 0.11$  mm
- **Penetration time of glove material** Value for permeation: Level  $\leq 480$  min
- **Eye protection:** Safety glasses

## SECTION 9: Physical and chemical properties

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

#### · General Information

##### · Appearance:

Form:	Fluid
Colour:	Colourless
· Odour:	Odourless
· Odour threshold:	Not determined.

· pH-value (100 g/l) at 20 °C: 7-7.5

##### · Change in condition

Melting point/Melting range:	18 °C
Boiling point/Boiling range:	>290 °C

· Flash point:  
 ~ 180 °C (o.c.)  
 ~ 199 °C (c.c.)

· Inflammability (solid, gaseous) Not applicable.

· Ignition temperature: ~ 400 °C

· Decomposition temperature: Not determined.

· Self-inflammability: Not determined.

· Danger of explosion: Product is not explosive.

##### · Critical values for explosion:

Lower:	~2.6 Vol %
Upper:	~11.3 Vol %

· Vapour pressure at 20 °C: <0.001 hPa

· Density at 20 °C	1.26 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

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- |   |  |
|---|--|
| <b>· Solubility in / Miscibility with Water:</b>  | miscible                                   |
| <b>· Partition coefficient (n-octanol/water):</b> | -1.8 log POW (pure substance)              |
| <b>· Viscosity:</b>                               |  |
| <b>dynamic at 20 °C:</b>                          | ~1500 mPas                                 |
| <b>kinematic:</b>                                 | Not determined.                            |
| <b>· 9.2 Other information</b>                    | No further relevant information available. |

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** strong heating
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
 strong oxidizing agent, peroxy compounds, nitric acid, concentrated sulphuric acid, phosphorous oxides, hydrogen peroxide.
- **10.6 Hazardous decomposition products:**  
 No dangerous decomposition products known  
 At heating in vaporous and gaseous state explosive.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values that are relevant for classification:**

#### 56-81-5 glycerol

Oral	LD50	12600 mg/kg (rat)
		250 mg/kg (Mouse)
Dermal	LD50	>18700 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**  
 Natural substance  
 In case of inhalation of vapour: Slight irritation of the respiratory tract und lung  
 After swallowing of large amounts: vomiting, stomach pains, headache, dizziness, diarrhoea, cyanosis
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.

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- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability**  
>60 % /14 d .  
readily biodegradable (decrease: DOC >70 %;  
BSB >60 %; BSB5 zu CSB >50 %).
- **12.3 Bioaccumulative potential**  
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.  
(log Pow <1)
- **Behaviour in environmental systems:** log Pow: -1,8 (calculated).
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**  
fish toxicity: Carassius auratus LC50: >5000 mg/l/24 h.  
daphnia toxicity: Daphnia magna EC50: >10000 mg/l /24 h.  
  
Toxic limit concentration:  
Algal toxicity: Scenedesmus quadricauda IC5: >10000 mg/l/ 7 d.  
Bakteria toxicity: Pseudomonas putida EC5: >10000 mg/l /16 h.  
Protozoa: Entosiphon sulcatum EC5: 3200 mg/l /72 h.
- **Additional ecological information:**  
BSB 71% von ThSB/5d  
CSB 95% von ThSB  
ThSB: 1.217g/g
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): Weakly water-endangering.  
All details refer to pure substance.  
No environmental problems can be expected when the product is handled and used properly.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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#### SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name	
· ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	Void
· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

#### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- National regulations
- Water hazard class: Water hazard class 1 (Assessment by list): weakly water-endangering.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### SECTION 16: Other information

##### · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative

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**· Sources**

Internal physical tests, MSDS of the ingredients,  
Information system on hazardous substances of the German Social Accident Insurance  
(GESTIS-database on hazardous substances), <http://www.dguv.de/ifa/en/gestis/stoffdb/index.jsp>  
applicable EEC directives:  
- 1907/2006  
- 1272/2008

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