

SAFETY DATA SHEET

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

Date of creation: 4 Jan 2023

Revised on: 17 Aug 2026

Version: 2, replaces version 1



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Quality Check Material (PhGly)

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

1.1. Product identifier

Trade name/designation:

Quality Check Material (PhGly)

Other means of identification:

Pharmaceutical glycerol

CAS No.:

56-81-5

EC No.:

200-289-5

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

Use of the substance/mixture:

The product is intended for research, analysis and scientific education.

Scope of Application – Quality Check Material PhGly:

PhEur 10 / 0496: Determination of Glycerol Content

PhEur 10 / 0496: Determination of Ester Content

PhEur 10 / 0496: Impurities A and related substances

PhEur 10 / 2.5.12: Determination of Water Content

PhEur 10 / 2.2.6: Determination of Refractive Index n_{20D}

EN ISO 12185: Determination of density - Oscillating U-tube method - Crude petroleum and petroleum products

EN ISO 6271-2: Estimation of colour by the platinum-cobalt colour scale - Clear liquids

Relevant identified uses:

Life cycle stage [LCS]

SL: Service life

Sector of uses [SU]

SU 24: Scientific research and development

Product Categories [PC]

PC 21: Laboratory chemicals

Process categories [PROC]

PROC 9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC 15: Use as laboratory reagent

PROC 19: Manual activities involving hand contact

Environmental release categories [ERC]

ERC 2: Formulation into mixture (mixtures)

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Arbeitsgemeinschaft Qualitätsmanagement Biodiesel e.V. (AGQM)

Am Weidendamm 1A

10117 Berlin

Germany

Telephone: +49 (30) 726 259 80

Telefax: +49 (30) 726 259 85

E-mail: info@agqm-biodiesel.de

Website: www.agqm-biodiesel.de

E-mail (competent person): reach@agqm-biodiesel.de

1.4. Emergency telephone number

Giftnotruf Berlin/ Charité, 24h: +49 (30) 19240

REACH Compliance Office, +49 (30) 726 259 83 (Only available during office hours.)

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

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

Hazard statements: none

Supplemental hazard information: none

Precautionary statements Response

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Description:

Glycerol from transesterification of bio-oil, distilled and purified

Additional information:

Pharmaceutical glycerol

Ingredients / Impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 56-81-5 EC No.: 200-289-5	glycerol The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. Acute Toxicity Estimate ATE (oral) 12,600 mg/kg ATE (dermal) 10,000 mg/kg Additional information: May cause minor eye irritation.	≥ 99.5 - ≤ 100 %

SECTION 4: First aid measures

4.1. Description of first aid measures

Following inhalation:

Remove casualty to fresh air and keep warm and at rest. In case of respiratory tract irritation, consult a physician.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap.

IF ON CLOTHING: Immediately remove any contaminated clothing, shoes or stockings.

After eye contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion:

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Never give anything by mouth to an unconscious person or a person with cramps.

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

The following symptoms may occur: Nausea Headache Vomiting

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

No data available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water mist
alcohol resistant foam
Dry extinguishing powder
Carbon dioxide (CO₂)

5.2. Special hazards arising from the substance or mixture

Carbon monoxide
Carbon dioxide (CO₂)
Acrolein

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Do not breathe vapour.
Provide adequate ventilation.

Protective equipment:

Refer to section 5.3

Emergency procedures:

-

6.1.2. For emergency responders

Personal protection equipment:

Refer to section 5.3

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up

For containment:

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

For cleaning up:

Soak up inert absorbent and dispose as waste requiring special attention.
Wash with plenty of water.

6.4. Reference to other sections

No data available

6.5. Additional information

If appropriate sections 8 and 13 shall be referred to.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Avoid contact with eyes and skin. Do not breathe gas/vapour. Usual measures for fire prevention.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Hints on storage assembly:

hygroscopic

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Storage class (TRGS 510, Germany): 10 – Combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE) from 7 Jun 2017	glycerol CAS No.: 56-81-5 EC No.: 200-289-5	① 200 mg/m ³ ② 400 mg/m ³ ⑤ (einatembare Fraktion) DFG, Y

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Wash hands before breaks and after work.

8.2.2. Personal protection equipment

Eye/face protection:

Wear eye protection/face protection.

Skin protection:

Wash hands and face before breaks and after work and take a shower if necessary.

Hand protection: 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.

Suitable material: PVC (polyvinyl chloride)

NBR (Nitrile rubber)

Thickness of the glove material: Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Other protection measures:

Protective clothing: Check leak tightness/impermeability prior to use.

8.2.3. Environmental exposure controls

No data available

8.3. Additional information

No relevant control limits.

No recommended monitoring procedures.

No applicable occupational exposure limit values and/or biological limit values.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: colourless

Odour: characteristic-sweetish

flammability: No data available

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	5 - 6	20 °C	
Melting point	≈ 18 °C		
Freezing point	No data available		
Initial boiling point and boiling range	> 280 - < 300 °C		
Decomposition temperature	> 290 °C		
Flash point	> 160 - < 210 °C		
Evaporation rate	No data available		
Auto-ignition temperature	> 400 °C		
Upper/lower flammability or explosive limits	> 2.6 - < 11.3 Vol-%		
Vapour pressure	< 0.01 hPa	20 °C	② < 1 hPa (@ 100 °C)
Vapour density	No data available		
Density	> 1.25 - < 1.263 g/cm ³	20 °C	
Bulk density	not applicable		
Water solubility			② completely miscible. Further information: Miscible with: Ethanol
Partition coefficient: n-octanol/water	-2.6	20 °C	② log Pow (calculated.)
Dynamic viscosity	> 1,300 - < 1,420 mPa*s	20 °C	
Kinematic viscosity	No data available		

9.2. Other information

Flammability: Not readily flammable, > Flam. Liq. 4

Oxidising properties: Not oxidising.

Vapours can form explosive mixtures with air.

SECTION 10: Stability and reactivity

10.1. Reactivity

Possibility of hazardous reactions :

Oxidising agent

Strong acid

Undue heating: Formation of: Acrolein

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Refer to section 10.1

10.4. Conditions to avoid

Undue heating

10.5. Incompatible materials

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10.6. Hazardous decomposition products

Carbon monoxide
Acrolein

SECTION 11: Toxicological information

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

glycerol CAS No.: 56-81-5 EC No.: 200-289-5
LD₅₀ oral: 12,600 mg/kg (Rat) OECD
LD₅₀ dermal: 10,000 mg/kg (Rabbit) OECD

Acute inhalation toxicity:

LC₅₀ > 570 mg/m³ (1 h) (Rat)

Literature reference: RTECS

Skin corrosion/irritation:

Species: Rabbit (24 h)

Evaluation Causes mild skin irritation.

Serious eye damage/irritation:

Species: Rabbit (24 h)

Evaluation May cause minor eye irritation.

Respiratory or skin sensitisation:

No information available.

Germ cell mutagenicity:

No information available.

Carcinogenicity:

No information available.

Reproductive toxicity:

No information available.

STOT-single exposure:

No information available.

STOT-repeated exposure:

No information available.

Aspiration hazard:

-

Additional information:

Specific symptoms in animal studies: No information available.

Repeated dose toxicity (subacute, subchronic, chronic): No information available.

Observations relevant to classification: No information available.

Other observations: The following symptoms may occur: Nausea Headache Vomiting

* 11.2. Information on other hazards

Endocrine disrupting properties:

This substance does not have endocrine disrupting properties with respect to humans.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

LC₅₀ - Carassius auratus: > 5000 mg/l

LC₅₀ - Pimephales promelas: 44000 mg/l

LC₅₀ - Oncorhynchus mykiss: 67500 mg/l (96h)

EC₅ - Entosiphon sulcatum: 3200 mg/l/72h

EC₅ - Pseudomonas putida: > 10000 mg/l/16h

EC₅₀ - Daphnia magna (water flea): > 10000 mg/l/24h

IC₅ - Scenedesmus quadricauda: > 10000 mg/l/7 d

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Terrestrial toxicity:

No information available.

Effects in sewage plants:

No experimental data available but good biodegradability expected based on conclusion by analogy.

12.2. Persistence and degradability

Biodegradation:

Readily biodegradable: 63 % / 14 d (OECD 301C)

Additional information:

Further ecological information: No information available.

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water:

-2.6 at °C: 20; Remark: log Pow (calculated.)

Accumulation / Evaluation:

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

glycerol	CAS No.: 56-81-5	EC No.: 200-289-5
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Results of PBT and vPvB assessment: —

No experimental data available but good biodegradability expected based on conclusion by analogy.

* 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Chemical oxygen demand (COD): 870-1100 mg/g

Biochemical oxygen demand: 1000-1160 mg/g

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

14 06 03 *	(14) WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08) (06) waste organic solvents, refrigerants and foam/aerosol propellants (03 *) other solvents and solvent mixtures
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*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:

Incineration is recommended.

Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself. Wash with plenty of water.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.

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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant	not relevant	not relevant	not relevant
14.4. Packing group			
not relevant	not relevant	not relevant	not relevant
14.5. Environmental hazards			
not relevant	not relevant	not relevant	not relevant
14.6. Special precautions for user			
not relevant	not relevant	not relevant	not relevant

14.7. Maritime transport in bulk according to IMO instruments

IBC Code/2014: Pollution Category Z

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

Application-specific industry requirements

Synthetic polymer microparticles (as per entry 78 in Annex XVII of Regulation (EC) No. 1907/2006)

No synthetic microparticles are present.

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category.

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compound (VOC) content: 0 weight-%

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

No

Störfallverordnung (12. BImSchV)

for substances contained in the product:

This product is not assigned to a hazard category.

Not applicable.

for substances possibly developing during an incident:

Refer to section 10

Water hazard class

WGK:

1 - slightly hazardous to water

Source:

AwSV, Nr. 116 (Rigoletto)

Other regulations, restrictions and prohibition regulations

No

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

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SECTION 16: Other information

16.1. Indication of changes

1.2.	Relevant identified uses of the substance or mixture and uses advised against
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008
11.2.	Information on other hazards
12.6.	Endocrine disrupting properties
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture

16.2. Abbreviations and acronyms

CSA: Chemical Safety Assessment

PBT: Substance with persistent, bioaccumulative and toxic properties.

vPvB: Substance with very persistent and very bioaccumulative properties.

MFSU: Manufacture, formulation, supply and use

RIGOLETTO: Database of the German Federal Environmental Agency, which contains the classification of substances according to their water hazard class (<https://web.rigoletto.uba.de/Rigoletto/Home/Search>).

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

No data available

16.6. Training advice

No data available

16.7. Additional information

This SDS is not required by Article 31 of Regulation 1907/2006/EU as the substance is not classified as hazardous, however, to comply with Article 32 of REACH and provide customers with relevant information the format of the SDS (according to Regulation 2015/830/EU) has been used.

Given data sheets are based on our present experiences, however they are no assurance of product properties and do not justify a contractual legal relationship.

* Data changed compared with the previous version.