

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.0  
Prepared on : 02.04.2026  
Revised on : -

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

### 1.1 Product identifiers

**Product name** Glycerol  
**Product Number** PSR50413  
**Brand** PureSynth research chemicals  
**CAS No.** 56-81-5

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

**Identified uses** : Laboratory chemicals, Manufacture of substances

### 1.3 Details of the supplier of the safety data sheet

**Company** PureSynth Research Chemicals GmbH  
64683 Einhausen Marie-Curie-StraBe. 3, Germany

### 1.4 Emergency telephone number

**Worldwide Helpline No.:** 1800-8908-260

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

### 2.2 Label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

### 2.3 Other hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

**Common names & Synonyms**

**Mol. formula**

**CAS number**

Glycerin	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	56-81-5
<b>Component</b>	<b>Classification</b>	<b>Concentration</b>
Glycerol	-	-

#### SECTION 4: First aid measures

##### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>If inhaled</b>	After inhalation: fresh air.
<b>In case of skin contact</b>	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
<b>In case of eye contact</b>	After eye contact: rinse out with plenty of water. Remove contact lenses.
<b>If swallowed</b>	After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.
<b>Most important symptoms and effects, both acute and delayed</b>	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
<b>Indication of any immediate medical attention and special treatment needed</b>	No data available

#### SECTION 5: Firefighting measures

<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Water Foam Carbon dioxide (CO <sub>2</sub> ) Dry powder
<b>Unsuitable extinguishing media</b>	For this substance/mixture no limitations of extinguishing agents are given.
<b>Special hazards arising from the substance or mixture</b>	Carbon oxides Nitrogen oxides (NO <sub>x</sub> ) Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
<b>Advice for fire-fighters</b>	In the event of fire, wear self-contained breathing apparatus.
<b>Further information</b>	Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### SECTION 6: Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Advice for non-emergency personnel: Do not breathe vapours, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
<b>Environmental precautions</b>	Do not let product enter drains.
<b>Methods and materials for containment and cleaning up</b>	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.
<b>Reference to other sections</b>	For disposal see section 13.

#### SECTION 7: Handling and storage

<b>Precautions for safe handling</b>	For precautions see section 2.2.
--------------------------------------	----------------------------------

**Conditions for safe storage, including any incompatibilities**

Tightly closed. hygroscopic  
storage temperature -25 - -10 °C

**Specific end use(s)**

Storage class (TRGS 510): 10: Combustible liquids  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls / Personal protection

**Control parameters**

Ingredients with workplace control parameters

**Exposure controls**

**Appropriate engineering controls**

No data available

**Personal protective equipment:**

**Eye / face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

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

**Respiratory protection**

Recommended Filter type: Filter A-(P2)

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Control of environmental exposure**

Do not let product enter drains.

## SECTION 9: Physical and chemical properties

<b>Appearance</b>	Form: Liquid Colour: Colourless
<b>Odour</b>	odourless
<b>pH - Value</b>	5.5 - 8
<b>Density</b>	1.261 g/cm <sup>3</sup> at 20 °C
<b>Boiling Point</b>	20 °C
<b>Melting Point</b>	165 - 170 °C - lit.
<b>Solubility in water</b>	soluble
<b>Flash point</b>	160 °C - closed cup
<b>Vapour pressure</b>	0.0033 hPa at 50 °C
<b>Auto-ignition temperature</b>	370 °C
<b>Vapour density</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Partition coefficient: n- octanol / water</b>	log Pow: -1.75 at 25 °C - Bioaccumulation is not expected.
<b>Viscosity</b>	Viscosity, kinematic: No data available Viscosity, dynamic: 1410 mPa.s at 20 °C
<b>Explosive properties</b>	No data available
<b>Upper / lower flammability or explosive limits</b>	No data available
<b>Oxidizing properties</b>	none

### Other safety information:

<b>Surface tension</b>	63,4 mN/m at 20 °C
<b>Relative vapor density</b>	3.18 - (Air = 1.0)

## SECTION 10: Stability and reactivity

<b>Reactivity</b>	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
<b>Chemical stability</b>	The product is chemically stable under standard ambient conditions (room temperature).
<b>Possibility of hazardous reactions</b>	Risk of explosion with: halogens Strong oxidizing agents peroxi compounds hydrogen peroxide Nitriles perchloric acid with Lead oxides Nitric acid with sulfuric acid Risk of ignition or formation of inflammable gases or vapours with: potassium permanganate hydrides calcium hypochlorite Fluorine with Lead oxides

<b>Condition to avoid</b>	Exothermic reaction with: Oxides of phosphorus Chromium (VI) oxide phosphorus halides Acetic anhydride with phosphorous oxichloride with Nitrobenzene Strong heating.
<b>Incompatible materials</b>	Strong bases, Strong oxidizing agents
<b>Hazardous decomposition products</b>	In the event of fire: see section 5

## SECTION 11: Toxicological information

<b>Acute toxicity</b>	LD50 Oral - Rat - female - 27200 mg/kg Remarks: (ECHA) LC50 Inhalation - Rat - male and female - 4 h - > 5850 mg/l - aerosol  Remarks: (ECHA)
<b>Skin corrosion/irritation</b>	LD50 Dermal - Guinea pig - male and female - 56750 mg/kg Remarks: (ECHA) Skin - Rabbit Result: No skin irritation - 24 h Remarks: (ECHA)
<b>Serious eye damage/eye irritation</b>	Eyes - Rabbit Result: No eye irritation - 7 Days Remarks: (ECHA)
<b>Respiratory or skin sensitization</b>	Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429)
<b>Germ cell mutagenicity</b>	Test Type: Ames test Test system: <i>S. typhimurium</i> Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Remarks: (IUCLID) Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: sister chromatid exchange assay Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: unscheduled DNA synthesis assay Test system: rat hepatocytes Method: OECD Test Guideline 482 Result: negative Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473

	Result: negative
<b>Carcinogenicity</b>	No data available
<b>Reproductive toxicity</b>	No data available
<b>Specific target organ toxicity - single exposure</b>	No data available
<b>Specific target organ toxicity - repeated exposure</b>	No data available
<b>Aspiration hazard</b>	No data available
<b>Additional Information</b>	<p>The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.</p> <p>Repeated dose toxicity - Rat - male - Oral - 28 Days - NOAEL (No observed adverse effect level) - &gt; 1600 mg/kg</p> <p>Remarks: (ECHA)</p> <p>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p>

## SECTION 12: Ecological information

### Toxicity

Toxicity to fish	static test LC50 - Oncorhynchus mykiss (rainbow trout) – 54000 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity to algae	No data available
Toxicity to bacteria	No data available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	No data available

### Persistence and degradability

Biodegradability	aerobic - Exposure time 1 d Result: 94 % - Readily biodegradable. Remarks: (ECHA)
Biochemical Oxygen Demand (BOD)	870 mg/g Remarks: (External MSDS)
Chemical Oxygen Demand (COD)	1160 mg/g Remarks: (External MSDS)
Theoretical oxygen demand	1217 mg/g Remarks: (Lit.)
Ratio BOD/ThBOD	71 % Remarks: (Lit.)

### Bioaccumulation

No data available

### Mobility in soil

No data available

### Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### Other adverse effects

No data available

### SECTION 13: Disposal considerations

**Waste treatment methods** No data available

**Contaminated packaging** No data available.

### SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
<b>ADR / RID</b>	-	Not dangerous goods	-	-	no
<b>IMDG</b>	-	Not dangerous goods	-	-	no
<b>IATA</b>	-	Not dangerous goods	-	-	no

### SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

### SECTION 16: Other information

The information in this SDS 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. The user must be determined suitability of this information for his application.