

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1  
Prepared on : 30.03.2019  
Revised on : 05.02.2026

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

### 1.1 Product identifiers

**Product name** Dimethyl sulfoxide  
**Product Number** PSR36268 / PSR3327 / PSR38226 / PSR43448  
**Brand** PureSynth research chemicals  
**CAS No.** 67-68-5

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

**Identified uses** : Solvent for analytical purpose

### 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

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

### 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. Rapidly absorbed through skin.

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
DMSO Methyl sulfoxide	C <sub>2</sub> H <sub>6</sub> OS	67-68-5

No components need to be disclosed according to the applicable regulations.

#### SECTION 4: First aid measures

##### Description of first aid measures

<b>General advice</b>	No data available
<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: Fire fighting measures

<b>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 Sulfur oxides Combustible. Vapors 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>	Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. 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 vapors, aerosols. Keep away from heat and sources of ignition. 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>	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.
<b>Conditions for safe storage, including any incompatibilities</b>	Tightly closed. Store under inert gas. Hygroscopic
<b>Specific end use(s)</b>	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

<b>Control parameters</b>	Ingredients with workplace control parameters
<b>Exposure controls</b>	Personal protective equipment
<b>Appropriate engineering controls</b>	
<b>Personal protective equipment:</b>	
<b>Eye / face protection</b>	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
<b>Skin protection</b>	No data available  required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.
<b>Respiratory protection</b>	Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds 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.
<b>Control of environmental exposure</b>	Do not let product enter drains.

## SECTION 9: Physical and chemical properties

<b>Appearance</b>	Form: liquid, clear Colour: clear
<b>Odour</b>	odorless
<b>pH - Value</b>	No data available
<b>Density</b>	1.1 g/mL
<b>Boiling Point</b>	189 °C
<b>Melting Point</b>	16 - 19 °C
<b>Solubility in water</b>	completely miscible
<b>Flash point</b>	87 °C - closed cup
<b>Vapour pressure</b>	0.55 hPa at 20 °C
<b>Auto-ignition temperature</b>	300 - 302 °C at 1.013 hPa
<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: -1.35 at 20 °C - Bioaccumulation is not expected.
<b>Viscosity</b>	Viscosity, dynamic: 2.14 mPa.s at 20 °C
<b>Explosive properties</b>	Not classified as explosive
<b>Upper / lower flammability or explosive limits</b>	Upper explosion limit: 28.5 %(V) Lower explosion limit: 2.6 %(V)
<b>Oxidizing properties</b>	No data available

### Other safety information:

Surface tension 43.5 mN/m at 20 °C

Dissociation constant 35.1

Relative vapor density 2.70 - (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>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Risk of explosion with: acetylidene organic halides perchlorates Acid chlorides nonmetallic halides iron(III) compounds
<b>Condition to avoid</b>	No data available
<b>Incompatible materials</b>	No data available
<b>Hazardous decomposition products</b>	In the event of fire: see section 5

**SECTION 11: Toxicological information**

<b>Acute toxicity</b>	LD50 Oral - Rat - male and female - 28.300 mg/kg LC0 Inhalation - Rat - male and female - 4 h - > 5,33 mg/l - dust/mist LD50 Dermal - Rat - male and female - 40.000 mg/kg
<b>Skin corrosion/irritation</b>	Skin - Rabbit Result: slight irritation - 4 h
<b>Serious eye damage/eye irritation</b>	Eyes - Rabbit Result: slight irritation – 24 h
<b>Respiratory or skin sensitization</b>	Maximization Test - Guinea pig Result: negative Local lymph node assay (LLNA) - Mouse Result: negative
<b>Germ cell mutagenicity</b>	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 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 479 Result: negative Test Type: Mutagenicity (mammal cell test): chromosome aberration Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) Species: Rat Application Route: Intraperitoneal 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>	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. Repeated dose toxicity - Rat - male and female - Oral - 18 Months - NOAEL (No observed adverse effect level) - 3.300 mg/kg - LOAEL (Lowest observed adverse effect level) - 9.900 mg/kg Repeated dose toxicity - Monkey - male and female - Dermal - 18 Months - NOAEL (No observed adverse effect level) - >= 8.910 mg/kg - LOAEL (Lowest observed adverse effect level) - 990 mg/kg

## SECTION 12: Ecological information

### Toxicity

Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity to algae	No data available
Toxicity to bacteria	No data available

**Persistence and degradability** No data available

**Biodegradability** Not readily biodegradable.

**Bio accumulative potential** 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, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at Levels of 0.1% or higher.

**Endocrine disrupting properties** The substance/mixture does not contain components considered to have endo according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017 (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

**Products**

**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 safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

Conditions of restriction for the following entries should be considered:  
Number on list 3  
Number on list 40  
Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	n-Hexane
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	Not applicable
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	Not applicable

## 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.