

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.0  
Prepared on : 28.03.2026  
Revised on : -

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

### 1.1 Product identifiers

**Product name** Piperazine hydrate  
**Product Number** PSR50409  
**Brand** PureSynth research chemicals  
**CAS No.** 142-63-2

### 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

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

Skin corrosion, (Sub-category 1B)	H314: Causes severe skin burns and eye damage.
Respiratory sensitization, (Category 1)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, (Category 1)	H317: May cause an allergic skin reaction.
Reproductive toxicity, (Category 2)	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.

### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

<b>Pictogram</b>	
<b>Signal word</b>	Danger
<b>Hazard statement(s)</b>	
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
<b>Precautionary statement(s)</b>	
P202	Do not handle until all safety precautions have been read and understood.

P260	Do not breathe dust.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P240	Ground and bond container and receiving equipment.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
Supplemental Hazard Statements	none

### 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
Diethylenediamine Hexahydrate	C <sub>4</sub> H <sub>10</sub> N <sub>2</sub> · 6H <sub>2</sub> O	142-63-2
Component	Classification	Concentration
Piperazine hexahydrate	Skin Corr. 1B; Resp. Sens. 1; Skin Sens. 1; Repr. 2; H314, H334, H317, H361fd	<= 100 %

## SECTION 4: First aid measures

### Description of first aid measures

<b>General advice</b>	First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.
<b>If inhaled</b>	After inhalation: fresh air. Call in physician.
<b>In case of skin contact</b>	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
<b>In case of eye contact</b>	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
<b>If swallowed</b>	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
<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>	No data available

<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 (NOx) Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating.
<b>Advice for fire-fighters</b>	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
<b>Further information</b>	Remove container from danger zone and cool with water. 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. Avoid substance contact. Ensure adequate ventilation. 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 and neutralising 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>	<b>Advice on safe handling</b> Work under hood. Do not inhale substance/mixture. <b>Advice on protection against fire and explosion</b> Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. <b>Hygiene measures</b> Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.
<b>Conditions for safe storage, including any incompatibilities</b>	Tightly closed. Dry. Keep locked up or in an area accessible only to qualified or authorized persons.  Storage stability Recommended storage temperature 2 - 8 °C  Storage class (TRGS 510): 8A: Combustible, corrosive hazardous materials
<b>Specific end use(s)</b>	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>	
<b>Appropriate engineering controls</b>	No data available
<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). Tightly fitting safety goggles

**Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves

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

**Body Protection**

Flame retardant antistatic protective clothing.

**Respiratory protection**

required when dusts 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. Recommended Filter type: Filter type P3  
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: Powder to Crystal Colour: White
<b>Odour</b>	No data available
<b>pH - Value</b>	No data available
<b>Density</b>	No data available
<b>Boiling Point</b>	145 - 156 °C at 1013 hPa
<b>Melting Point</b>	44 - 45 °C
<b>Solubility in water</b>	No data available
<b>Flash point</b>	88 °C - closed cup
<b>Vapour pressure</b>	No data available
<b>Auto -ignition temperature</b>	No data available
<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>	No data available
<b>Viscosity</b>	No data available
<b>Explosive properties</b>	Not classified as explosive
<b>Upper / lower flammability or explosive limits</b>	No data available
<b>Oxidizing properties</b>	none

Other safety information: No data available

**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>	No data available
<b>Condition to avoid</b>	Avoid moisture. Strong heating.
<b>Incompatible materials</b>	Strong oxidizing agents, Strong acids, Acid chlorides, Acid anhydrides
<b>Hazardous decomposition products</b>	In the event of fire: see section 5

#### SECTION 11: Toxicological information

<b>Acute toxicity</b>	LD50 Oral - Mouse - 11200 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Behavioral: Ataxia. Diarrhea Inhalation: No data available Dermal: No data available LD50 Intraperitoneal - Mouse - 300 mg/kg
<b>Skin corrosion/irritation</b>	Remarks: No data available
<b>Serious eye damage/eye irritation</b>	Remarks: No data available
<b>Respiratory or skin sensitization</b>	Remarks: No data available
<b>Germ cell mutagenicity</b>	No data available
<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. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### 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
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	No data available
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available

<b>Mobility in soil</b>	No data available
<b>Results of PBT and vPvB assessment</b>	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.
<b>Endocrine disrupting properties</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.
<b>Other adverse effects</b>	No data available

### SECTION 13: Disposal considerations

<b>Waste treatment methods</b>	No data available
<b>Contaminated packaging</b>	No data available.

### SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
<b>ADR / RID</b>	2579	PIPERAZINE	8	III	no
<b>IMDG</b>	2579	PIPERAZINE	8	III	no
<b>IATA</b>	2579	Piperazine	8	III	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 Other regulations**

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.

**15.3 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.