

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1  
Prepared on : 12.08.2025  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking.

### 1.1 Product identifiers

**Product name** Sodium perchlorate monohydrate  
**Product Number** PSR40772  
**Brand** PureSynth research chemicals  
**CAS No.** 7791-07-3

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

**Identified uses** : Laboratory chemicals

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

**Company** PureSynth Research Chemicals GmbH  
64683 Einhausen Marie-Curie-Straße. 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

Oxidizing solids, (Category 1)	H271: May cause fire or explosion; strong oxidizer.
Acute toxicity, (Category 4)	H302: Harmful if swallowed.
Eye irritation, (Category 2)	H319: Causes serious eye irritation.
Specific target organ toxicity - repeated exposure, (Category 2), Thyroid	H373: May cause damage to organs through prolonged or repeated exposure.

### 2.2 Label elements

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

**Pictogram**



**Signal word** Danger

**Hazard statement(s)**

H271	May cause fire or explosion; strong oxidizer.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H373	May cause damage to organs (Thyroid) through prolonged or exposure.

**Precautionary statement(s)**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep away from clothing and other combustible materials.
P260	Do not breathe dust.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/ attention if you feel unwell.
Supplemental Hazard Statements	None

### 2.3 Other hazards:

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

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
-	ClNaO <sub>4</sub> · H <sub>2</sub> O	7791-07-3
Component	Classification	Concentration
Sodium perchlorate monohydrate	Ox. Sol. 1; Acute Tox. 4; Eye Irrit. 2; STOT RE 2; H271, H302, H319, H373	<= 100 %

## 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. 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. Consult a physician.
<b>In case of eye contact</b>	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
<b>If swallowed</b>	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
<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 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. Hydrogen chloride gas Sodium oxides
<b>Special hazards arising from the substance or mixture</b>	Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Has a fire-promoting effect due to release of oxygen.
<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>	Suppress (knock down) gases/vapours/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: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. 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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.
<b>Reference to other sections</b>	For disposal see section 13.

## SECTION 7: Handling and storage

<b>Precautions for safe handling</b>	Work under hood. Do not inhale substance/mixture. Keep away from open flames, hot surfaces and sources of ignition. Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2.
<b>Conditions for safe storage, including any incompatibilities</b>	Tightly closed. Separately or together with other oxidising substances only and away from sources of ignition and heat. Because of their oxidation potential these products can raise the burning rate of combustible substances substantially or ignite combustible substances on contact with them. strongly hygroscopic
<b>Specific end use(s)</b>	Storage class (TRGS 510): 5.1A: Strongly oxidizing hazardous materials 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>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). Safety glasses 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
<b>Skin protection</b>	
<b>Body Protection</b>	protective clothing 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 P2
<b>Respiratory protection</b>	
<b>Control of environmental exposure</b>	Do not let product enter drains.

## SECTION 9: Physical and chemical properties

<b>Appearance</b>	Form: crystalline Colour: white
<b>Odour</b>	odourless
<b>pH - Value</b>	4.5 – 7.0 at 50 g/l at 25 °C
<b>Density</b>	2.52 g/cm <sup>3</sup> at 50 °C
<b>Boiling Point</b>	No data available
<b>Melting Point</b>	471.8 °C
<b>Solubility in water</b>	No data available
<b>Flash point</b>	Not applicable
<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>	No data available
<b>Upper / lower flammability or explosive limits</b>	No data available
<b>Oxidizing properties</b>	The substance or mixture is classified as oxidizing with the category 1.

**Other safety information:** No data available

## SECTION 10: Stability and reactivity

<b>Reactivity</b>	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
<b>Chemical stability</b>	The product is chemically stable under standard ambient conditions (room temperature). Risk of ignition or formation of inflammable gases or vapours with: Light metals Organic Substances Metals Alcohols Fluorine Halogenated hydrocarbon semimetallic oxides Polyvinylchloride
<b>Possibility of hazardous reactions</b>	sulfur acids Violent reactions possible with: Cyanides Risk of explosion with: ammonium compounds Reducing agents magnesium Powdered metals combustible substances
<b>Condition to avoid</b>	no information available
<b>Incompatible materials</b>	Iron, Mild steel
<b>Hazardous decomposition products</b>	In the event of fire: see section 5

## SECTION 11: Toxicological information

<b>Acute toxicity</b>	Acute toxicity estimate Oral – 500.1 mg/kg Inhalation: No data available Dermal: No data available
<b>Skin corrosion/irritation</b>	Skin - Rabbit Result: Mild skin irritation - 4 h
<b>Serious eye damage/eye irritation</b>	Eyes - Rabbit
<b>Respiratory or skin sensitization</b>	Local lymph node assay (LLNA) - Mouse Result: negative Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative
<b>Germ cell mutagenicity</b>	Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Metabolic activation: with and without metabolic activation

	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>	May cause damage to organs through prolonged or repeated exposure. - Thyroid
<b>Aspiration hazard</b>	No data available
<b>Additional Information</b>	
<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.

## SECTION 12: Ecological information

<b>Toxicity</b>	
<b>Toxicity to fish</b>	static test LC50 - Danio rerio (zebra fish) - > 1.000 mg/l - 96 h
<b>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)</b>	static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h
<b>Toxicity to algae</b>	static test NOEC - Pseudokirchneriella subcapitata (green algae) – 86.3 mg/l - 72 h
<b>Persistence and degradability</b>	Not applicable for inorganic substances
<b>Biodegradability</b>	No data available
<b>Bio accumulative potential</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, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher 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>Endocrine disrupting properties</b>	
<b>Other adverse effects</b>	No data available

## SECTION 13: Disposal considerations

<b>Waste treatment methods</b>	Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
<b>Products</b>	
<b>Contaminated packaging</b>	Dispose of as unused product.

## SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
<b>ADR / RID</b>	1502	SODIUM PERCHLORATE	5.1	II	No
<b>IMDG</b>	1502	SODIUM PERCHLORATE	5.1	II	No
<b>IATA</b>	1502	Sodium perchlorate	5.1	II	No

## SECTION 15: Regulatory information

### **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.

### **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.