

Trade name: Cupri sulfas pentahydr

Substance number: 063168

Version: 4 / CH

Date revised: 03.01.2025

Replaces Version: 3 / CH

Print date: 03.01.25

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

1.1. Product identifier

Cupri sulfas pentahydr

Item No. 06316800

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible

for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4 H302

Eye Dam. 1 H318

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms ***



Signal word ***

Danger

Hazard statements ***

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements ***

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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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P308+P311
P501.3IF exposed or concerned: Call a POISON CENTER or doctor.
Disposal in compliance with local and national regulations.**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains Copper sulfate pentahydrate

2.3. Other hazards

The Substance does not meet PBT-criteria. This substance does not meet the vPvB-criteria. This substance does not have endocrine disrupting properties with respect to humans. This substance does not have endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients**Molecular weight**

Value	249.68	g/mol
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Hazardous ingredients**Copper sulfate pentahydrate**

CAS No.	7758-99-8	
EINECS no.	231-847-6	
Concentration	>= 50	%
Classification (Regulation (EC) No. 1272/2008)		
	Acute Tox. 4	H302
	Eye Dam. 1	H318
	Aquatic Acute 1	H400
	Aquatic Chronic 1	H410

ATE	oral	481	mg/kg
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SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Remove the casualty into fresh air and keep him calm.

After skin contact

After contact with skin, wash immediately with plenty of water. Remove contaminated, soaked clothing immediately and dispose of safely.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

After ingestion

Let plenty of water be drunk in small gulps. Summon a doctor immediately.

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

irritant - risk of serious damage to eyes, Causes very strong irritations of the eyes, skin and mucous membranes. if swallowed: Irritation of mucosa, Nausea, Vomiting, Diarrhoea

4.3. Indication of any immediate medical attention and special treatment needed**Hints for the physician / treatment**

Symptomatic treatment (decontamination, vital functions), no specific antidote known.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media

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Extinguishing measures to suit surroundings

5.2. Special hazards arising from the substance or mixture

The product is not combustible. If a fire breaks out nearby evolution of dangerous gases possible. In the event of fire the following can be released: Sulfuroxides (SO_x)

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Use personal protective clothing.

Other information

Suppress vapours with water spray jet. Do not discharge into surface waters/groundwater.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Do not inhale dust. Avoid contact with skin, eyes and clothing. Ensure supply of fresh air.

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up

To pick up dry. Dampen, pick up mechanically and dispose of. Clean up affected area.

SECTION 7: Handling and storage ***

7.1. Precautions for safe handling

Advice on safe handling

Avoid dust formation. Do not inhale dust.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a well-ventilated place.

Hints on storage assembly

Not required.

Storage classes

Storage class according to TRGS 510	13	Non- combustible solids
Storage category (Switzerland)	8	Caustic and corrosive substances

SECTION 8: Exposure controls/personal protection

8.2. Exposure controls

General protective and hygiene measures

Remove contaminated, soaked clothing immediately and dispose of safely. Wash hands and face before breaks and after work. Preventative skin protection.

Respiratory protection

Breathing apparatus in the event of aerosol. Particle filter P2

Hand protection

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Appropriate Material	nitrile rubber - NBR
Breakthrough time	> 480 min

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Hand protection must comply with EN 374.

Eye protection

necessary; Eye protection must comply with EN 166.

Body protection

Clothing as usual in the chemical industry.

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties *****9.1. Information on basic physical and chemical properties****Physical state** solid**Colour** blue**Odour** odourless**Melting point**

Value 110 °C

Boiling point or initial boiling point and boiling range

Remarks Not applicable

Flammability

Not applicable

Upper and lower explosive limits

Remarks No data available

Flash point

Value °C

Remarks Not applicable

Decomposition temperature

Value 88 to 245 °C

pH value

Value 3.5 to 4.5

Concentration/H₂O 50 g/l

Temperature 20 °C

Viscosity

Remarks Not applicable

Vapour pressure

Remarks Not applicable

Density and/or relative densityValue 2.28 g/cm³

Temperature 20 °C

9.2. Other information**Solubility in water**

Value 317 g/l

Temperature 20 °C

Explosive properties

evaluation The product is not liable to cause dust explosions.

SECTION 10: Stability and reactivity

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10.1. Reactivity

Hazardous decomposition products may be formed at high temperatures.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Strong reactions with strong oxidising agents possible. Possibility of hazardous reactions: In case of contact with hydroxylamine, magnesium(powder), strong lye. Explosion hazard: In case of contact with acetylene, potassium chlorate

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Reacts violently with: Strong oxidising agents, Magnesium

10.6. Hazardous decomposition productsIn the event of fire the following can be released: sulphurous oxides (SO_x)**SECTION 11: Toxicological information *******11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity *****

ATE	481	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)**Copper sulfate pentahydrate**

Species	rat	
LD50	481	mg/kg
Source	ECHA	

Acute dermal toxicity (Components)**Copper sulfate pentahydrate**

Species	rat	
LD50	> 2000	mg/kg
Source	ECHA	

Skin corrosion/irritation (Components)**Copper sulfate pentahydrate**

Remarks	not determined
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Serious eye damage/irritation (Components)**Copper sulfate pentahydrate**

evaluation	irritant - risk of serious damage to eyes
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Sensitization (Components)**Copper sulfate pentahydrate**

Remarks	not determined
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Mutagenicity (Components)**Copper sulfate pentahydrate**

Species	Salmonella typhimurium
Method	Ames test
Remarks	negative
Source	ECHA

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Reproduction toxicity (Components)**Copper sulfate pentahydrate**

Remarks not determined

Carcinogenicity (Components)**Copper sulfate pentahydrate**

Remarks not determined

Specific Target Organ Toxicity (STOT) (Components)**Copper sulfate pentahydrate**

Remarks not determined

11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

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

Experience in practice

Irritates the mucous membrane. Irritation

Other information

Observe the usual precautions for handling chemicals.

SECTION 12: Ecological information *****12.1. Toxicity****Fish toxicity (Components)****Copper sulfate pentahydrate**

Reference substance	Copper sulfate pentahydrate	
Species	rainbow trout (<i>Oncorhynchus mykiss</i>)	
LC50	0.032	mg/l
Duration of exposure	96	h
Source	ECOTOX Database	

Daphnia toxicity (Components)**Copper sulfate pentahydrate**

Reference substance	Copper sulfate pentahydrate	
Species	Daphnia magna	
	0.182	mg/l
Duration of exposure	48	h
Source	ECOTOX Database	

12.2. Persistence and degradability**Biodegradability (Components)****Copper sulfate pentahydrate**

Remarks Not applicable

12.5. Results of PBT and vPvB assessment**Results of PBT and vPvB assessment *****

The Substance does not meet PBT-criteria.
This substance does not meet the vPvB-criteria.

12.6 Endocrine disrupting properties**Endocrine disrupting properties with respect to the environment**

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

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12.7. Other adverse effects**General information / ecology**

Do not allow it to reach soil, ground water, water bodies or sewage system.







SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	-		
14.1. UN number	3077	3077	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper sulfate pentahydrate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper sulfate pentahydrate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper sulfate pentahydrate)
14.3. Transport hazard class(es)	9	9	9
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 kg		
Transport category	3		
14.5. Environmental hazards	 ENVIRONMENTALLY HAZARDOUS	Marine Pollutant 	 ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

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Water Hazard Class (Germany)

Water Hazard Class (Germany) WGK 3

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

SECTION 16: Other information**Hazard statements listed in Chapter 3**

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Eye Dam. 1	Serious eye damage, Category 1

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.