

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.26.2018

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## Cupric Sulfate, Anhydrous

### SECTION 1: Identification

#### Product identifier

**Product name:** Cupric Sulfate, Anhydrous

**Product code:** S25285

#### Recommended use of the product and restriction on use

**Relevant identified uses:** Not determined or not applicable.

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

#### Manufacturer or supplier details

##### Manufacturer:

AquaPhoenix Scientific  
860 Gitts Run Road  
Hanover  
PA 17331  
(717) 632-1291

##### Supplier:

Fisher Science Education  
6771 Silver Crest Road  
Nazareth  
PA 18064  
800 955-1177

#### Emergency telephone number:

##### United States

Emergency Telephone No.: 800-255-3924

### SECTION 2: Hazard(s) identification

#### GHS classification:

Acute toxicity (oral), category 4

Skin irritation, category 2

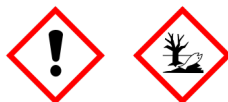
Eye irritation, category 2A

Acute aquatic hazard, category 1

Chronic aquatic hazard, category 1

#### Label elements

##### Hazard pictograms:



**Signal word:** Warning

#### Hazard statements:

H302 Harmful if swallowed.

H302+H312 Harmful if swallowed or in contact with skin.

H302+H332 Harmful if swallowed or if inhaled.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H315 Causes skin irritation.

H315+H320 Causes skin and eye irritation.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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### Precautionary statements:

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

P273 Avoid release to the environment.

P301 IF SWALLOWED:

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P302 IF ON SKIN:

P313 Get medical advice/attention

P321 Specific treatment (see ... on this label).

P332 If skin irritation occurs:

P352 Wash with plenty of soap and water.

P362 Take off contaminated clothing and wash before reuse

P364 Wash it before reuse

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

P332+P313 If skin irritation occurs: Get medical advice/attention

P362+P364 Take off contaminated clothing and wash it before reuse.

P305 IF IN EYES:

P337 If eye irritation persists:

P338 Remove contact lenses if present and easy to do. Continue rinsing

P351 Rinse cautiously with water for several minutes

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists get medical advice/attention

P391 Collect spillage

P501 Dispose of contents/container to ...

**Hazards not otherwise classified:** None

## SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7758-98-7	Cupric Sulfate, Anhydrous	100

**Additional Information:** None

## SECTION 4: First aid measures

### Description of first aid measures

#### General notes:

Not determined or not applicable.

#### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

#### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Wash affected area with soap and water

Seek medical attention if symptoms develop or persist

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### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes  
If symptoms develop or persist, seek medical attention  
Remove contact lens(es) if able to do so during rinsing  
Seek medical attention if irritation persists or if concerned

### After swallowing:

Rinse mouth thoroughly  
Seek medical attention if irritation, discomfort, or vomiting persists  
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell  
Do not induce vomiting  
Rinse mouth and then drink plenty of water

### Most important symptoms and effects, both acute and delayed

#### Acute symptoms and effects:

Not determined or not applicable.

#### Delayed symptoms and effects:

Not determined or not applicable.

### Immediate medical attention and special treatment

#### Specific treatment:

Not determined or not applicable.

#### Notes for the doctor:

Not determined or not applicable.

## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

#### Unsuitable extinguishing media:

Not determined or not applicable.

### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

### Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing  
Refer to Section 8

### Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols  
Avoid contact with skin, eyes and clothing

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation  
Ensure air handling systems are operational  
Wear protective eye wear, gloves and clothing

### Environmental precautions:

Should not be released into the environment  
Prevent from reaching drains, sewer or waterway

### Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing

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### Reference to other sections:

Not determined or not applicable.

## SECTION 7: Handling and storage

### Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.  
Avoid breathing mist or vapor.

### Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

## SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States (OSHA)	Cupric Sulfate, Anhydrous	7758-98-7	OSHA 8 Hour TWA PEL: 1 mg/m <sup>3</sup> , as Cu (dusts and mists)
	Cupric Sulfate, Anhydrous	7758-98-7	OSHA 8 Hour TWA PEL: 0.1 mg/m <sup>3</sup> , as Cu (fume)
	Cupric Sulfate, Anhydrous	7758-98-7	NIOSH 10 Hr Recommended exposure limit (REL): 1 mg/m <sup>3</sup> , as Cu
ACGIH	Cupric Sulfate, Anhydrous	7758-98-7	ACGIH TLV 0.1 mg/m <sup>3</sup> , as Cu, (fume)
	Cupric Sulfate, Anhydrous	7758-98-7	ACGIH TLV 1 mg/m <sup>3</sup> , as Cu, (dusts and mists)

### Biological limit values:

No biological exposure limits noted for the ingredient(s).

### Information on monitoring procedures:

Not determined or not applicable.

### Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

### Personal protection equipment

#### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

#### Skin and body protection:

Select glove material impermeable and resistant to the substance.

#### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

### General hygienic measures:

Wash hands before breaks and at the end of work.  
Avoid contact with skin, eyes and clothing.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance	Gray powder.
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<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not determined or not available.
<b>pH</b>	Not determined or not available.
<b>Melting point/freezing point</b>	200°C
<b>Initial boiling point/range</b>	Not determined or not available.
<b>Flash point (closed cup)</b>	Not determined or not available.
<b>Evaporation rate</b>	Not determined or not available.
<b>Flammability (solid, gas)</b>	Not determined or not available.
<b>Upper flammability/explosive limit</b>	Not determined or not available.
<b>Lower flammability/explosive limit</b>	Not determined or not available.
<b>Vapor pressure</b>	Not determined or not available.
<b>Vapor density</b>	Not determined or not available.
<b>Density</b>	Not determined or not available.
<b>Relative density</b>	Not determined or not available.
<b>Solubilities</b>	Soluble in water.
<b>Partition coefficient (n-octanol/water)</b>	Not determined or not available.
<b>Auto/Self-ignition temperature</b>	Not determined or not available.
<b>Decomposition temperature</b>	Not determined or not available.
<b>Dynamic viscosity</b>	Not determined or not available.
<b>Kinematic viscosity</b>	Not determined or not available.
<b>Explosive properties</b>	Not determined or not available.
<b>Oxidizing properties</b>	Not determined or not available.

### Other information

<b>Additional property</b>	Hygroscopic.
<b>Specific Gravity</b>	3.6

## SECTION 10: Stability and reactivity

### Reactivity:

Does not react under normal conditions of use and storage.

### Chemical stability:

No decomposition if used and stored according to specifications.

### Possibility of hazardous reactions:

None under normal conditions of use and storage.

### Conditions to avoid:

High temperatures, dust generation, exposure to moist air or water. Store away from oxidizing agents, strong acids or bases. Incompatible Materials.

### Incompatible materials:

Aqueous solution of copper (2+) sulfate is an acid. Strong acids. Strong bases. Incompatible with strong bases, hydroxylamine, magnesium.

### Hazardous decomposition products:

Oxides of sulfur. Copper fumes. Carbon oxides (CO, CO<sub>2</sub>).

## SECTION 11: Toxicological information

### Acute toxicity

**Assessment:** Harmful if swallowed

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### Cupric Sulfate, Anhydrous

**Product data:** No data available.

**Substance data:** No data available.

#### Skin corrosion/irritation

**Assessment:** Causes skin irritation

**Product data:** No data available.

**Substance data:** No data available.

#### Serious eye damage/irritation

**Assessment:** Causes serious eye irritation

**Product data:** No data available.

**Substance data:** No data available.

#### Respiratory or skin sensitization

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

#### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Specific target organ toxicity (single exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

### SECTION 12: Ecological information

#### Acute (short-term) toxicity

**Assessment:** Very toxic to aquatic life

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## Cupric Sulfate, Anhydrous

**Product data:** No data available.

**Substance data:**

Name	Result
Cupric Sulfate, Anhydrous	LC50 (4 days): 2.8 - 9,150 µg/L
	LC50 (48 h): 7 - 200 µg/L

### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:**

Name	Result
Cupric Sulfate, Anhydrous	NOEC (11 months): 14.5 - 33 µg/L
	NOEC (8 months): 8.3 - 13.8 µg/L

### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

### Bioaccumulative potential

**Product data:** No data available.

**Substance data:**

Name	Result
Cupric Sulfate, Anhydrous	Copper is accumulated by plants and animals, but it does not appear to biomagnify from plants to animals. This lack of biomagnification appears common with heavy metals. In air, copper aerosols (in general) have a residence time of 2 to 10 days in an unpolluted atmosphere and 0.1 to > 4 days in polluted, urban areas.

### Mobility in soil

**Product data:** No data available.

**Substance data:**

Name	Result
Cupric Sulfate, Anhydrous	This soluble substance is likely to be mobile in soil.

**Other adverse effects:** No data available.

## SECTION 13: Disposal considerations

### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

## SECTION 14: Transport information

### United States Transportation of dangerous goods (49 CFR DOT)

UN number	3288
UN proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (Cupric Sulfate)
UN transport hazard class(es)	6.1
Packing group	III
Environmental hazards	None
Special precautions for user	None
Excepted quantities	30 g/30 ml



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## Cupric Sulfate, Anhydrous

Passenger air/rail	100KG
Cargo aircraft only	200KG
Stowage category	A

### International Maritime Dangerous Goods (IMDG)

UN number	3288
UN proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (Cupric Sulfate)
UN transport hazard class(es)	6.1 
Packing group	III
Environmental hazards	None
Special precautions for user	None
Excepted quantities	30 g/30 ml
Limited quantity	5KG

### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	3288
UN proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (Cupric Sulfate)
UN transport hazard class(es)	6.1 
Packing group	III
Environmental hazards	None
Special precautions for user	None
ERG code	151
Excepted quantities	30 g/30 ml
Passenger and cargo	100KG
Cargo aircraft only	200KG
Limited quantity	5KG

## SECTION 15: Regulatory information

### United States regulations

#### Inventory listing (TSCA):

7758-98-7	Cupric Sulfate, Anhydrous	Listed
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**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

#### SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

**SARA Section 302 extremely hazardous substances:** Not determined.

#### SARA Section 313 toxic chemicals:

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**CERCLA:** Not determined.



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**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):** Not determined.

### Massachusetts Right to Know:

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### New Jersey Right to Know:

7758-98-7	Cupric Sulfate, Anhydrous	Listed
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### New York Right to Know:

7758-98-7	Cupric Sulfate, Anhydrous	Listed
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### Pennsylvania Right to Know:

7758-98-7	Cupric Sulfate, Anhydrous	Listed
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**California Proposition 65:** Not determined.

## SECTION 16: Other information

**Abbreviations and Acronyms:** None

### Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 2-0-1

**HMIS:** 2-0-1

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**End of Safety Data Sheet**