



Safety Data Sheet  
According to Regulation (EC) 1907/2006  
and (EU) 453/2010

## 1270 Copper(II) Sulphate 5-hydrate

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

#### 1.1 Product identifier

Name:

Copper(II) Sulphate 5-hydrate

**CAS:** [7758-99-8]

**REACH Registration Number:** 01-2119520566-40-XXXX

#### 1.2 Relevant identified uses of the substance or mixture:

For laboratory utilisation, analysis, research and fine chemistry.

#### 1.3 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

Polígono Pla de la Bruguera

E-08211 Castellar del Vallès

(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: [product.safety@panreac.com](mailto:product.safety@panreac.com)

#### 1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

### 2. Identification of dangers

#### 2.1 Classification of the substance or the mixture.

**Classification Regulation (CE) nº 1272/2008.**

Acute Tox. 4

Eye Dam. 1

Aquatic Acute 1

Aquatic Chronic 1

## Classification (67/548/CEE or 1999/45/CE).

**N** Dangerous for the environment  
**Xn** Harmful

R52  
R50/53  
R41  
R22

## 2.2 Label elements:

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H302 Harmful if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

### Precautionary statements

P264 Wash...thoroughly after handling.

P310 Immediately call a POISON CENTER or doctor/physician.

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

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

P273 Avoid release to the environment.

P280 Wear protective gloves, protective clothing, eye protection or face protection.

For the full text of the P-phrases mentioned in this section, see section 16.

## 2.3 Other hazards:

No further relevant information available.

## 3. Composition/information on ingredients

Name: Copper(II) Sulphate 5-hydrate

Formula:  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$  M.= 249,68 CAS [7758-99-8]

EC number (EINECS): 231-847-6

EC index number: 029-004-00-0

REACH Registration Number: 01-2119520566-40-XXXX

## **COMPOSITION:**

### **0002: Potassium Sulphate**

Formula: K<sub>2</sub>SO<sub>4</sub> M.= 174,27 CAS [7778-80-5]  
EC number (EINECS): 231-915-5 REACH Registration Number:  
01-2119489441-34-XXXX

**Content:** 99,6 %

**No hazardous substance as specified in Regulation (CE) 1272/2008.  
No hazardous substance as specified in Classification (67/548/CEE or  
1999/45/CE).**

## **4. First aid measures**

### **4.1 General indications:**

Never provide drink or induce vomiting in the event of loss of consciousness.  
Never provide drink or induce vomiting in the event of loss of consciousness.

### **4.2 Inhaling:**

Take the person out into the fresh air. Take the person out into the fresh air. In the event sickness persists, seek medical assistance.

### **4.3 Contact with the skin:**

Wash with plenty of water. Remove contaminated clothing. Wash with plenty of water. Remove contaminated clothing.

### **4.4 Eyes:**

Wash with plenty of water, keeping eyelids open. Wash with plenty of water, keeping eyelids open. Seek medical assistance.

### **4.5 Swallowing:**

In the event of sickness, seek medical assistance. Drink large amounts of water.

#### **· Information for doctor:**

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available. Induce vomiting. Call for medical help.

## **5. Firefighting measures**

### **5.1 Extinguishing media:**

As appropriate to the environment. As appropriate to the environment.

### **5.2 Unsuitable extinguishing media:**

No specific data.

### **5.3 Special hazards arising from the substance or mixture:**

Incombustible. Incombustible. In the event of fire, toxic fumes may form:

### **5.4 Advice for firefighters:**

Suitable clothing and footwear. Suitable clothing and footwear.

## **6. Accidental release measures**

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

Do not inhale the dust. Do not inhale the dust.

### **6.2 Environmental precautions:**

Avoid pollution of the soil, water supplies and drains. Avoid pollution of the soil, water supplies and drains.

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

Collect up dry. Collect up dry and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water. Clean any remains with plenty of water.

## **7. Handling and storage**

### **7.1 Precautions for safe handling:**

Ensure good ventilation and renewal of the air in the premises. No special indications.

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

Well sealed containers. Well sealed containers. Dry atmosphere. Dry atmosphere.

**Recommended storage temperature:** Room temperature.

**Recommended storage temperature:** Room temperature.

### **7.3 Specific end use(s):**

No further relevant information available.

## **8. Exposure controls/personal protection**

### **8.1 Exposure controls:**

Ensure good ventilation and renewal of the air in the premises. No special indications.

### **8.2 Control parameters:**

Data not available. Data not available.

### **8.3 Respiratory protection:**

If dust forms, use suitable respiratory protection. If dust forms, use suitable respiratory protection.

### **8.4 Hand protection:**

Use suitable gloves Use suitable gloves

### **8.5 Eye/face protection:**

Use safety glasses. Use safety glasses.

### **8.6 Individual hygiene measures:**

Wash hands before breaks and when the job is done. Remove contaminated clothing. Wash hands and face before breaks and when the job is done.

### **8.7 Environmental exposure controls:**

Fulfill the commitments under local environmental protection legislation. Fulfill the commitments under local environmental protection legislation.

## **9. Physical and chemical properties**

Appearance: solid  
Colour: Blue  
Granulometry: N/A  
Odour: Odourless.Odourless.  
pH: ~4 ((50g/l))  
Melting point/freezing point: N/A  
Initial boiling point and boiling range:  
N/A  
Flash point:  
N/A  
Flammability (solid, gas):  
N/A  
Upper/lower flammability or explosive limits:  
N/A  
Vapour pressure: N/A  
Vapour density: N/A  
Relative density:

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2,284 g/ml  
Solubility: 330 g/l in water ( 20 °C )  
Partition coefficient: n-octanol/water:  
N/A  
Auto-ignition temperature:  
N/A  
Decomposition temperature: above110 °C  
Kinematic viscosity: N/A  
Dynamic viscosity:  
N/A

## **10. Stability and reactivity**

### **10.1 Conditions to avoid:**

The product is chemically stable under standar ambient conditions (room temperature). The product is chemically stable under standar ambient conditions (room temperature).

### **10.2 Incompatible materials:**

No specific data. Hydroxylamine.

### **10.3 Hazardous decomposition products:**

No specific data. Sulphur oxides.

### **10.4 Chemical stability:**

No specific data. Through heating, the product loses the crystallization water.

## **11. Toxicological information**

### **11.1 Acute toxicity:**

LD L0 oral man : 50 mg/kg referred to the pure substance CuSO4  
LD50 oral rat : 6.600 mg/kg referred to the pure substance KCl  
LD L0 oral man : 50 mg/kg (referring to the anhydrous substance)  
LD L0 oral hmn : 1.088 mg/kg  
LD50 oral rat : 300 mg/kg (referring to the anhydrous substance)

## 11.2 Dangerous effects for health:

If swallowed: If dust inhaled: gastro-intestinal disorders Irritations to the mucosae  
Take the usual precautions for handling chemical products. coughing breathing difficulties Inhaling large quantities of metal fumes can cause fever. Upon contact with the skin: irritations Through contact with the eyes: conjunctivitis sight disorders If swallowed: stomach pains vomiting intestinal disorders hypotension tachycardia collapse acidosis After a period of latency: death

## 12. Environmental information

### 12.1 Toxicity:

#### - EC50 test (mg/l):

#### - EC50 test (mg/l):

Bacteria (Photobacterium phosphoreum) (Cu) 0,27 mg/l.

Fish Toxic (SO4) >7 g/l

Extr. toxic

Bacteria Toxic (SO4) 2,5 g/l

Bacteria (Cu) 1 mg/l

Bacteria (Photobacterium phosphoreum) (Cu) 0,27 mg/l.

Classification: Extr. toxic

Extr. toxic

Bacteria (Cu) 1 mg/l

Algae (Cu) 1 mg/l

Classification: Extr. toxic

Classification: Extr. toxic

Algae (Cu) 1 mg/l

Protozoa: (Cu) 1 mg/l

Classification: Extr. toxic

Classification: Extr. toxic

Protozoa: (Cu) 1 mg/l

Fish (Cu) 1 mg/l

Classification: Extr. toxic

Classification: Extr. toxic

Fish (C. auratus) (Cu) 0,01 mg/l

Fish (Cu) 1 mg/l

Classification: Extr. toxic

Classification: Extr. toxic

Bivalves. (Cu) 0,55 mg/l

Fish (C. auratus) (Cu) 0,01 mg/l

Classification: Extr. toxic

Classification: Extr. toxic

Oysters. (Cu) 0,1 mg/l

Bivalves. (Cu) 0,55 mg/l

Classification: Extr. toxic

Classification: Extr. toxic

#### - Receptor medium:

Oysters. (Cu) 0,1 mg/l

Classification: Extr. toxic

Risk for the water environment

High

Risk for the land environment

Medium

#### - Observations:

Highly toxic throughout the trophic chain.

Major ecotoxic effect in water environments.

## **12.2 Persistence and Degradability :**

Data not available.

### **- Test:**

### **- Biotic degradation classification:**

BOD5/COD

Biodegradability

### **- Abiotic degradation depending on pH:**

### **- Observations:**

## **12.3 Bioaccumulative potential:**

Data not available.

### **- Test:**

### **- Bioaccumulation:**

Risk

### **- Observations:**

## **12.4 Mobility in soil :**

Data not available.

Data not available.

## **12.5 Assessment PBT and MPMB :**

Data not available.

## **12.6 Other adverse effects:**

If suitable handling conditions are maintained, no ecological problems are to be anticipated.

Do not allow it to enter soils or water channels.

DATA BASED on the components of the preparation.

(Soluble copper compounds)

## **13. Disposal considerations**

### **13.1 Waste treatment methods:**

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

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### **13.2 Contaminated containers:**

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

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## **14. Transport information**

Overland (ADR):

Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
UN 3077 Class: 9 CONTAM. MAR PELIG.M.AMB Packaging group: III (E)

By sea (IMDG):

Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

UN 3077 Class: 9 CONTAM. MAR PELIG.M.AMB Packaging group: III

By air (ICAI-IATA):

Technical name: Environmentally hazardous substance, solid, n.o.s

UN 3077 Class: 9 CONTAM. MAR PELIG.M.AMB Packaging group: III

Packaging instructions: CAO 956 PAX 956

## 15. Regulatory information

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

## 16. Other information

### Other precautionary statements

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

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

P330 Rinse mouth.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

### Labelling (65/548/CEE or 1999/45/CE)

R-phrases(s): **R52** Harmful to aquatic organisms.  
**R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
**R41** Risk of serious damage to eyes.  
**R22** Harmful if swallowed.

S-phrases(s): **S61** Avoid release to the environment. Refer to special instructions/safety data sheets.  
**S60** This material and its container must be disposed of as hazardous waste.  
**S22** Do not breathe dust.

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In respect of the previous review, changes have been made to the following sections: 1,2,4,5,6,7,8,9,10,11,13,14,15

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.