

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

### Identification of the product

Copper(II) sulfate pentahydrate

### Manufacturer/supplier identification

Company: Guangdong Guanghua Sci-Tech Co.,Ltd

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## 2. Hazards identification

### Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 3)

Acute toxicity, skin (Category 5)

Eye irritation (Category 2A)

Skin irritation (Category 2)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

### Label elements

Pictogram



Signal word Danger

### Hazard statement(s)

H301 Toxic if swallowed.

H313 May be harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statement(s)

P264 + P265 Wash hands thoroughly after work. Don't touch your eyes.

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

P273 Avoid release to the environment.

P280 Wear eye protection/ face protection.

P301 + P316 If swallowed by mistake: Seek immediate medical attention.

P302 + P352 If skin is contaminated: wash thoroughly 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.

P321 Specialized treatment (see related measures on this label).

P330 Rinse mouth.

P332 + P317 If skin irritation occurs: Seek medical attention.

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P337 + P317	If eye irritation persists: Seek medical attention.
P362 + P364	Remove contaminated clothing and wash it before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard Statements  
none

### **3. Composition/information on ingredients**

Synonyms:  
Copper(II) sulfate pentahydrate  
CAS-No.: 7758-99-8  
*M*: 249.68 g/mol  
Molecular formula:  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$

### **4. First aid measures**

#### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

#### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### **5. Fire-fighting measures**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **6. Accidental release measures**

#### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### **Environmental precautions**

Do not let product enter drains.

#### **Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **7. Handling and storage**

#### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.

#### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

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

**Appropriate engineering controls**

General industrial hygiene practice.

**Personal protective equipment****Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

**9. Physical and chemical properties**

**Form:** crystals

**Colour:** blue

**Odour:** not available

**pH value:** not available

**Melting point:** not available

**Boiling point:** not available

**Ignition temperature:** not available

**Flash point:** not available

**Autoignition temperature:** not available

**Explosion limits**

**lower:** not available

**upper:** not available

**Density :** 2.29

**Bulk density:** not available

**Solubility in**

**water (20 °C) :** soluble in water

**diluted acids (20 °C) :** not available

**Thermal decomposition:** not available

**10. Stability and reactivity****Chemical stability**

no data available

**Conditions to avoid**

no data available

**Materials to avoid**

Powdered metals, Anhydrous copper(II) sulfate, hydroxylamine, Magnesium

**Hazardous decomposition products**

Other decomposition products - no data available

**11. Toxicological information****Acute toxicity**

LD50 Oral - Rat - 300 mg/kg

Remarks: (anhydrous substance)

LD50 Dermal - Rat - > 2,000 mg/kg

Remarks: (anhydrous substance)

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**12. Ecological information****Toxicity**

Toxicity to daphnia and other aquatic invertebrates      EC50 - Daphnia magna (Water flea) - 0.024 mg/l - 48 h

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

**13. Disposal considerations**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**14. Transport information****ADR/RID**

UN-Number: 3077 Class: 9 Packing group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper sulphate pentahydrate)

**IMDG**

UN-Number: 3077 Class: 9 Packing group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper sulphate pentahydrate)

Marine pollutant: yes

**IATA**

UN-Number: 3077 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Copper sulphate pentahydrate)

**15. Regulatory information**

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

**16. Other information**

General update.

*Regional representation:*

This information is given on the authorised Safety Data Sheet for your country.