



# EMERGENCY CARD

## Copper sulfate Pentahydrate



### 1) Chemical product and company identification

**Cupric Sulfate**, Vitriol blue.

**Concentración:** 25% Cu

**Class:**9

**U.N.:** 3077

**N°. CAS:** 7758-99-8

### Industrias emu s.a.s.

Address: Carrera 41 N° 46-132

Itagüí – Antioquia

Tel: + 57(4) 373 11 12

Contactos de emergencia

(+57) 311 734 52 04

(+57) 313 732 96 68

(+57) 301 250 53 53

### 2) Hazard identification

#### Overview of the emergencies

Blue crystals are harmful by ingestion, can cause skin and eye irritation, very toxic to aquatic organisms.

Acute toxicity, Category 4, oral, H302 Skin irritation, Category 2, H315 Causes severe eye damage, Category 1, H318 Chronic aquatic toxicity, Category 1, H410

#### Elements of the label

#### Hazard pictograms



#### Word of warning

Attention

#### Danger indications

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes severe eye damage.

H410 Very toxic to aquatic organisms, with lasting harmful effects.

### Precautionary statements

#### Preventing

P273 Avoid its release to the environment.

P280 Use eye protection.

#### Intervention

P313 Get medical advice/care.

P305 + P351 + P338 IN CASE OF EYE CONTACT: wash carefully with water for several minutes.

Remove contact lenses, if worn and easy. Keep rinsing.

### Potential adverse health effects

**Inhalation: Inhalation of material can be harmful.**

**Skin and eyes: Contact can cause skin and eye burns.**

**Signs and symptoms:** irritating effects, conjunctivitis, stomach pains, diarrhea, vomiting, collapse and death.

Risk of corneal turbidity.

## 3) Exposure and personal protection controls

### Control parameters

OSHA Permissible Exposure Limit (PEL):  $1\text{mg}/\text{m}^3$  (TWA) for copper powders and mists.

ACGIH Threshold limit value (TLV):  $1\text{ mg}/\text{m}^3$  (TWA) for copper powders and mists.

### Exposure controls

#### Ventilation system

A local and/or general exhaust aeration system is recommended to keep employee exposures below exposure limits. Local exhaust ventilation is generally preferred because emissions of the pollutant at its source can be controlled, preventing its dispersion in the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Best Practice Manual, Latest Edition, for details.*

#### Personal Respirators (NIOSH Approved)

If the exposure limit is exceeded a particulate respirator half dust/fog mask shall be used if it is exposed 10 times above the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator provider, Anything that is lower. A full dust/fog mask particulate respirator shall be used if 50 times above the exposure limit or maximum use concentration specified by the appropriate regulatory agency or respirator provider, whichever is lower. For emergencies or cases where exposure levels are not known, use a full positive pressure mask, a self-contained respirator. **WARNING:** Self-contained respirators do not protect workers in oxygen-deficient atmospheres.

### Hand protection

#### Submergence

Material of the glove:	Nitrile rubber
Thickness of the glove:	0,11 mm
Time of penetration:	>480 min

Spatter

Material of the glove:

Nitrile rubber

Thickness of the glove:

0,11 mm

Time of penetration:

>480 min

### Eye protection

Wear protective chemical goggles. Keep an eye wash fountain and emergency showers in the work area.

## 4) Stability and reactivity

**Materials to avoid:** exothermic reaction with strong oxidizing agents, hydroxylamine and magnesium. Risk of explosion in contact with acetylene, potassium chlorate.

**Dangerous decomposition products are not known.**

**Additional information:** stable under normal conditions of use and storage. It loses crystallization water at 30 °C (loss of 2 waters) and at 110 °C (loss of 2 more water).

# E M E R G E N C Y C O N T R O L

## 5) First aid

**After inhalation:** fresh air.

**After skin contact:** immediately remove all contaminated garments. Wash the skin with plenty of water for at least 20 minutes.

**After eye contact: wash with plenty of water for 10 minutes. Consult the ophthalmologist.**

**After ingestion:** If the patient is conscious, ask the patient to drink 1 glass of water (about 200 ml). If vomiting does not start spontaneously induce vomiting, during spontaneous or induced vomiting, keep the victim's head down with the body on its stomach to avoid aspiration. Transfer to the medical center.

### Indication of any medical care and special treatment to be provided immediately

Make sure medical personnel are aware of the materials involved and take precautions to protect themselves. As long as the skin surface remains intact, subsequent absorbent-toxic effects are unlikely.

After ingestion, induction of emesis is probably unnecessary because the Cu ions released in the gastrointestinal tract act as an emetic. Check the water/electrolyte balance (danger of acidosis), blood count, and liver and kidney function parameters for any suspected poisoning as soon as possible.

## 6) Firefighting

**Explosive properties:** not classified as explosive.

**Oxidizing properties:** none.

**Ignition temperature:** not combustible, but can react by heating and producing toxic fumes. Possibility of dangerous vapors by fire in the environment.

### Suitable means of extinction:

*Small fire:* dry chemical dust, CO<sub>2</sub>, water spray or regular foam.

*Big Fire:* Use water spray, fog or regular foam. Do not disperse spilled material with high pressure water jets. Move containers from the fire area if you can safely do so. Make a dam for the water that controls the fire for its subsequent disposal.

## 7) Spills

Do not touch or walk on spilled material. Stop the spill, if you can safely do so. Prevent the dust cloud.

### *Small spill*

With a clean shovel, place the material in a clean and dry container and cover loosely; remove containers from the spill area.

### *Big spill*

Mark the area with signage tape, cover the dust spill with a plastic sheet or tarp to minimize its spread. Prevent entry into waterways, sewers, basements or confined areas.

© **Industrias emu s.a.s.** | Soluciones Agro-Industriales | Colombia

**Medellín, ITAGÜÍ:** Carrera 41 No. 46 - 132 - Itagüí, Antioquia, Colombia  
+57 (4) 373 1112 | +57 314 700 5761

**Bogotá, COTA:** Calle 80, Km 1.5 Vía Siberia, Bodega 01 Local 51, Parque Agroindustrial del Occidente - Cota, Cundinamarca, Colombia  
+57 (4) 373 1112 Ext 301 | +57 314 773 4473

**Barranquilla, SOLEDAD:** Calle 30 No. 13 - 278, Km.7 Vía Aeropuerto - Soledad, Atlántico, Colombia  
+57 (5) 343 6822 | +57 317 441 3758