



# EMERGENCY CARD

## Copper sulphate monohydrate



### 1) Chemical product and company identification

Cupric Sulfate, Vitriol blue.

**Concentración:** 35% Cu

**Class:** 9

**U.N.:** 3077

**N°. CAS:** 10257-54-2

**Industrias emu s.a.s.**

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### 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 Eye irritation, Category 2, H319 Acute aquatic toxicity, Category 1, H400 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.

H319 Causes severe eye irritation.

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

### *Precautionary statements*

#### Preventing

P264 Wash carefully after handling.

P270 Do not eat, drink, or smoke while handling this product.

P273 Avoid its release to the environment.

#### Intervention

P301 + P312 IF SWALLOWED: Call a poison information center or doctor if you are ill.

P302 + P352 IN CASE OF SKIN CONTACT: wash with plenty of soap and water.

P305 + P351 + P338 IN CASE OF EYE CONTACT: wash carefully with water for several minutes. Remove contact lenses, if worn and easy. Keep clarifying.

P391 Collect the spills.

### **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

Splatter

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, magnesium.

**Dangerous decomposition products are not known.**

**Additional information:** stable under normal conditions of use and storage. It loses crystallization water at 250 °C.

# 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 skin with water/shower 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 patient's head down with the body on the 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. Move the patient to a place where he breathes fresh air. Supply oxygen if breathing with difficulty. Remove and isolate contaminated clothing and footwear.

### 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.

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