

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 285.00

Revision Date: July 1, 1996

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Cupric Sulfate

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Cupric Sulfate, penta hydrate

Synonym: copper (II) sulfate, blue vitriol, chalcantite

CAS#: 7758-99-8

### SECTION 3 — HAZARDS IDENTIFICATION

Blue crystalline powder, granules or larger crystals. Odorless.  
Skin and respiratory irritant; moderately toxic by ingestion and inhalation.

#### FLINN AT-A-GLANCE

Health-2

Flammability-0

Reactivity-0

Exposure-2

Storage-1

0 is low hazard, 3 is high hazard

### SECTION 4 — FIRST AID MEASURES

Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Rinse out mouth, give 1 to 2 cups of water or milk, induce vomiting. After vomiting, give mixture of 2 Tbs. of activated charcoal mixed with one cup of water. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Non flammable, non combustible solid.

However, sulfur trioxide can be produced at temperatures above 653 C.

**Fire Fighting Instructions:** Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

None

Established

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from area. Sweep up, place in sealed bag or container and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

### SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates and phosphates. Efflorescent. Protect from air, store in a Flinn Chem-Saf bag. Use and dispense in a hood.

### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron.

---

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

---

Blue crystalline powder, granules or larger crystals. Odorless.  
Solubility: Soluble in water and methanol; slightly in alcohol.  
Formula:  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$   
Formula Weight: 249.69

Specific Gravity: 2.28

---

**SECTION 10 — STABILITY AND REACTIVITY**

---

Avoid contact with finely powdered metals, heat. Will corrode steel.  
Shelf Life: Fair, slowly effloresces in air.

---

**SECTION 11 — TOXICOLOGICAL INFORMATION**

---

Acute effects: Toxic, severe eye irritant, gastrointestinal disturbances

Chronic effects: Possible mutagen  
Target organs: Liver, kidneys, blood

ORL-RAT LD50: 300 mg/Kg

IHL-RAT LC50: N.A.

SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

---

**SECTION 12 — ECOLOGICAL INFORMATION**

---

Data not yet available.

---

**SECTION 13 — DISPOSAL CONSIDERATIONS**

---

Please consult with state and local regulations.  
Flinn Suggested Disposal Method #26a is one option.

---

**SECTION 14 — TRANSPORT INFORMATION**

---

Shipping Name: Not regulated

Hazard Class: N/A

UN Number: N/A

N/A = Not applicable

---

**SECTION 15 — REGULATORY INFORMATION**

---

TSCA-listed, EINECS-listed (231-847-6).

---

**SECTION 16 — OTHER INFORMATION**

---

This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

**Consult your copy of the Flinn Chemical Catalog/Reference Manual  
for additional information about laboratory chemicals**