

MSDS

CUPRIC SULFATE COLORIMETRIC SOLUTION (CS)

## Material Safety Data Sheet

### Section 1: Chemical Product and Company Identification

<b>Catalog Number:</b> 2495, C028400, SC028400	
<b>Product Identity:</b> CUPRIC SULFATE COLORIMETRIC SOLUTION (CS)	
<b>Manufacturer's Name:</b> RICCA CHEMICAL COMPANY LLC	<b>Emergency Contact(24 hr) -- CHEMTREC®</b> Domestic: 800-424-9300 International: 703-527-3887
<b>CAGE Code:</b> 0V553	
<b>Address:</b> 448 West Fork Dr Arlington, TX 76012	<b>Telephone Number For Information:</b> 817-461-5601
<b>Date Prepared:</b> 10/9/00	<b>Revision: 2</b>  Last Revised: 01/10/2003 Date Printed: 11/01/2006 8:46:06 am

### Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Hydrochloric Acid	7647-01-0	2 - 3	C 5 ppm C 7.5 mg/m3	C 5 ppm C 7 mg/m3
Water, Deionized	7732-18-5	Balance	Not Available Not Available	Not Available Not Available
Copper Sulfate Pentahydrate	7758-99-8	6 - 7	Not Available Not Available	Not Available Not Available

### Section 3: Hazard Identification

**Emergency Overview:** Avoid ingestion or contact with skin, eyes, or clothing. May cause irritation upon contact. If ingested, dilute with water or milk and induce vomiting. Call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention.

**Target Organs:** eyes, skin, gastrointestinal tract, respiratory tract, liver, kidneys.

**Eye Contact:** May cause irritation, redness, pain, and tearing.

**Inhalation:** May cause mild irritation.

**Skin Contact:** May cause irritation, redness, and pain.

**Ingestion:** Large doses may cause systemic Copper poisoning which may include headache, liver and kidney damage, nausea, diarrhea and vomiting.

**Chronic Effects/Carcinogenicity:** None

**IARC** - Hydrochloric Acid is unclassifiable as to carcinogenicity to humans.

**NTP** - No.

## MSDS

CUPRIC SULFATE COLORIMETRIC SOLUTION (CS)

OSHA - No.

**Reproductive Information:** Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Hydrochloric Acid.

**Teratology (Birth Defect) Information:** Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Hydrochloric Acid. Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Copper Sulfate Pentahydrate.

### Section 4: First Aid Measures - In all cases, seek qualified evaluation.

**Eye Contact:** Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Skin Contact:** Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

**Ingestion:** Dilute immediately with water or milk. Induce vomiting. Call a physician.

### Section 5: Fire Fighting Measures

**Flash Point:** Not Available.

**LFL:** Not Available.

**Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.

**Fire & Explosion Hazards:** Not considered to be a fire or explosion hazard.

**Fire Fighting Instructions:** Use normal procedures/instructions.

**Fire Fighting Equipment:** Use protective clothing and breathing equipment appropriate for the surrounding fire.

**Method Used:** Not Available.

**UFL:** Not Available.

### Section 6: Accidental Release Measures

Do not flush to sewer. Absorb with suitable material. Containerize for disposal with a hazardous waste disposal facility. Dispose of in accordance with local regulations.

### Section 7: Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

**Safety Storage Code:** General

### Section 8: Exposure Control/Personal Protection

**Engineering Controls:** No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** Normal room ventilation is adequate.

**Skin Protection:** Chemical resistant gloves.

**Eye Protection:** Safety glasses or goggles.

### Section 9: Physical and Chemical Properties

**Appearance:** Clear, blue liquid

**Odor:** odorless to slightly pungent

**Solubility in Water:** Infinite

**Specific Gravity:** Approximately 1

**pH:** Not Available.

**Boiling Point(°C):** Approximately 100

**Melting Point(°C):** Approximately 0

**Vapor Pressure:** Not Applicable.

### Section 10: Stability and Reactivity

**Chemical Stability:** Stable under normal conditions of use and storage.

**Incompatibility:** Hydroxylamine, alkalis, phosphates, hydrazine, sulfuric acid, finely powdered metals, active metals (Potassium, Sodium, Magnesium and Zinc).

**Hazardous Decomposition Products:** Emits highly toxic fumes of Sulfur Oxide when heated to decomposition.

**Hazardous Polymerization:** Will not occur.

## MSDS

CUPRIC SULFATE COLORIMETRIC SOLUTION (CS)

### Section 11. Toxicological Information

LD50, Oral, Rat: 300 mg/kg (Copper Sulfate), 900 mg/kg (Hydrochloric Acid), details of toxic effects not reported other than lethal dose value.

### Section 12. Ecological Information

**Ecotoxicological Information:** Copper and its compounds have high acute and chronic toxicity to aquatic life.

**Chemical Fate Information:** Copper and its compounds are highly persistent in the aquatic environment, with a half-life of greater than 200 days. When released into the soil or water, this material is not expected to biodegrade. This material is expected to significantly bioaccumulate. When released into the soil, this material may leach into groundwater.

### Section 13. Disposal Considerations

Whatever cannot be saved for recovery or reclamation should be handled with a RCRA approved hazardous waste facility for proper disposal. Do not flush to sewer. Always dispose of in accordance with local, state and federal regulations.

### Section 14. Transport Information

Part Numbers:

This product is not regulated.

### Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

**OSHA Status:** These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

**TSCA Status:** All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

**Section 302 Extremely Hazardous Substances:** Not Applicable.

**Section 311/312 Hazardous Categories:** Acute, Chronic: Yes      Fire, Pressure, Reactivity: No

**Section 313 Toxic Chemicals:** Not Applicable.

**California:** None Reported.

**Pennsylvania:** Hydrochloric Acid is listed as an Environmental Hazard on the state's Hazardous Substances List. Copper Sulfate Pentahydrate is listed as an Environmental Hazard on the state's Hazardous Substances List.

**RCRA Status:** Not Applicable.

**CERCLA Reportable Quantity:** Hydrochloric Acid - 5,000 pounds. Copper Sulfate Pentahydrate - 10 pounds.

**WHMIS:** D-2B: Poisonous and Infectious Material. Materials causing other toxic effects - Toxic Material.



### Section 16. Other Information





For RICCA, SpectroPure, Red Bird, and Solutions Plus Brands  
Emergency Contact (24 hr) -- CHEMTREC®  
Domestic: 800-424-9300  
International: 703-527-3887

CUPRIC SULFATE COLORIMETRIC SOLUTION (CS)

## MSDS

### NFPA Ratings:

Health: 2                      Flammability: 0                      Reactivity: 0                      Special Notice Key:None

### HMIS Ratings:

Health: 2                      Flammability: 0                      Reactivity: 0                      Protective Equipment:B (Protective Eyewear, Gloves)

Rev 1, 10-09-2001: Reformatted to electronic data format.  
Rev 2, 01-10-2003: (Section 1) added Solutions Plus catalog number C028400.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.