

MSDS

COPPER (CUPRIC) SULFATE Aqueous Solutions; COPPER STANDARDS

Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

Catalog Number: 2317, 2320, 2325, 2346, 2351, 2352, 2355, 2494, C-189, C-193, C-195, C-298, C-300, C026100, C026130, CX-1034, CX-1093, CX-916, R2285300, R2292700, R2318500, R2318800, R2319750, R23200UL, R2356000, SC026000, SC026100, SC026130, SC028420	
Product Identity: COPPER (CUPRIC) SULFATE Aqueous Solutions; COPPER STANDARDS	
Manufacturer's Name: RICCA CHEMICAL COMPANY LLC	Emergency Contact(24 hr) -- CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887
CAGE Code: 4TCW6, 0V553, 4XZQ2	
Address: 448 West Fork Dr Arlington, TX 76012	Telephone Number For Information: 817-461-5601
Date Prepared: 4/29/99	Revision: 27 Last Revised: 11/06/2013 Date Printed: 07/11/2014 11:36:26 am

Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Water, Deionized	7732-18-5	Balance	Not Available Not Available	Not Available Not Available
Copper Sulfate Pentahydrate	7758-99-8	1.1 - 26% (w/v)	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 system, liver, kidneys.

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

Inhalation: May cause 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 - No.

NTP - No.

OSHA - No.

Reproductive Information: Not Applicable.

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Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Copper Sulfate Pentahydrate.
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. **Method Used:** Not Available.
LFL: Not Available. **UFL:** 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 NIOSH-approved breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal. Do not flush to sewer. 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 **pH:** App.4 (0.2 Molar)
Odor: Odorless **Boiling Point(°C):** Approximately 100
Solubility in Water: Infinite **Melting Point(°C):** Approximately 0
Specific Gravity: Approximately 1.0-1.2 **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.

Section 11. Toxicological Information

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

Section 12. Ecological Information

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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: Copper Sulfate Pentahydrate 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: Copper Sulfate Pentahydrate - 10 pounds. Copper Sulfate Pentahydrate - 10 pounds.

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



Section 16. Other Information

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)

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Rev 1, 9-21-2000: Reformatted from WordPerfect® to Microsoft Word®; (Section 1) Revised emergency telephone number to CHEMTREC® 800-424-9300; (Section 3) revised overview for consistency with product labeling; (Section 7) added storage code; (Section 15) added TSCA hydrate statement, added section 313 information.

Rev 2, 10-09-2001: Reformatted to electronic data format.

Rev 3, 10-25-2001: (Section 1) added catalog number 2355.

Rev 4, 04-23-2002: (Section 1) added catalog number 2351.

Rev 5, 11-03-2003: (Section 1) added Solutions Plus catalog number C026130.

Rev 6, 12-09-2003: (Section 1) added (Cupric) to title, added Solutions Plus catalog number C026100.

Rev 7, 01-07-2004: (Section 1) revised title from specific concentrations, added catalog number R2356000; (Section 2) revised concentration of Copper Sulfate from < 20%; (Section 9) revised specific gravity from 1.0 - 1.1; (Section 13) added statement not to flush to sewer.

Rev 8, 04-02-2004: (Section 1) added catalog number R2349200.

Rev 9, 11-01-2005: (Section 1) added catalog number 2319.

Rev 10, 01-26-2006: (Section 1) added Red Bird catalog number C-189; (Section 15) added WHMIS information.

Rev 11, 02-03-2006: (Section 1) added Red Bird catalog number CX-1034.

Rev 12, 05-03-2006: (Section 1) added Red Bird catalog number C-298.

Rev 13, 06-08-2006: (Section 1) added catalog number R23200UL.

Rev 14, 06-22-2006: (Section 1) added Red Bird catalog number CX-916.

Rev 15, 07-10-2006: (Section 1) added Red Bird catalog number C-193.

Rev 16, 07-12-2006: (Section 1) added catalog number R2316800.

Rev 17, 08-02-2006: (Section 1) added catalog number R23168UL.

Rev 18, 08-17-2006: (Section 1) added Copper Standards to title, added catalog number R2303000.

Rev 19, 09-08-2006: (Section 1) added SpectroPure catalog number SC025930 and Red Bird catalog number C-195.

Rev 20, 10-26-2006: (Section 1) added SpectroPure catalog number SC025990.

Rev 21, 12-27-2006: (Section 1) added catalog number R2319750.

Rev 22, 02-16-2007: (Section 1) added quote numbers F71-0107 A and F71-0107B.

Rev 23, 04-30-2007: (Section 1) added Red Bird catalog number CX-1093.

Rev 24, 08-24-2007: (Section 1) added catalog numbers R2285300 and R2292700 (permanent numbers for quote numbers F71-0107 A and F71-0107B).

Rev 25, 12-17-2009: (Section 1) added catalog number R2318800.

Rev 26, 09-01-2010: (Section 1) removed the following catalog numbers: 2319, 2347, 2349, R2303000, R2316800, R23168UL, R2349200, SC025930 and SC025990; (Section 2) revised concentration of Copper Sulfate from < 26%.

Rev 27, 11-06-2013: (Section 1) added catalog number R2318500.

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.