



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. CC 430
Effective Date February 11, 1999

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	CUPRIC SULFATE, 20% SOLUTION	 <p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING</p> <table border="1"> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table> <p>HMIS *</p> <table border="1"> <tr> <td>Health</td> <td>2</td> </tr> <tr> <td>Fire</td> <td>0</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </table>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4	Health	2	Fire	0	Reactivity	0
LEAST	SLIGHT		MODERATE	HIGH	EXTREME													
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Health	2																	
Fire	0																	
Reactivity	0																	
Chemical Synonyms	Copper Sulfate, 20% Aqueous Solution																	
Formula	Mixture.																	
Unit Size	up to 4 Lt.																	
C.A.S. No.	Mixture.																	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Cupric Sulfate: (CAS No. 7758-99-8)	20%	See Section V.
Water: (CAS No. 7732-18-5)	80%	None established.
CAUTION! HARMFUL IF SWALLOWED.		
IRRITANT. MAY CAUSE SKIN REACTION.		

SECTION III PHYSICAL DATA

Melting Point (°F)	Freezes approx. -5°C (23°F)	Specific Gravity (H ₂ O = 1)	Approx. 1.1
Boiling Point (°F)	Approx. 105°C (221°F)	Percent Volatile by Volume (%)	80%
Vapor Pressure (mm Hg)	14 (water)	Evaporation Rate (Water = 1)	Greater than 1.
Vapor Density (Air=1)	0.7 (water)		
Solubility in Water	Complete.		
Appearance & Odor	Clear, blue, water like liquid; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable liquid.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Extinguisher Media	Use any media suitable for extinguishing supporting fire.				

SPECIAL FIREFIGHTING PROCEDURES

Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Copper Sulfate does not burn, nor will it support combustion. If water is used to extinguish fire, care should be used to keep such water out of streams or other water bodies.

UNUSUAL FIRE AND EXPLOSION HAZARDS

If dry heated above 1100°F (600°C), sulfur dioxide (SO₂) is evolved.

D.O.T. **NON-REGULATED.**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

CC 430

Threshold Limited Value None established for this mixture.

Effects of Overexposure **INGESTION:** Although a strong emetic, can cause copper poisoning and/or death. Symptoms: nausea, vomiting, diarrhea and gastric pain. **EYES:** Corrosive, causes conjunctivitis. **SKIN:** May cause allergic reaction. **INHALATION:** Causes upper respiratory irritation and congestion of the nasal mucous membranes.

Emergency and First Aid Procedures **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink, induce vomiting and call a physician. Never give anything by mouth to an unconscious person. **EYES:** Immediately flush with water for 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention. **SKIN:** Flush with water, then wash with mild soap and water. **INHALATION AS MIST:** Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid Excessive temperature and heat causing evaporation.
	Stable	X	

Incompatibility (Materials to Avoid) Solution is corrosive to mild steel.

Hazardous Decomposition Products If dry heated above 1100°F (600°C); sulfur dioxide (SO₂) may be released.

Hazardous Polymerization	Conditions to Avoid
May Occur	Will Not Occur
	X
	Not applicable.

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Sprinkle lime or soda ash on spill to form insoluble copper salt. Sweep up and place in a suitable container for disposal. Wash spill area with soap and water. Avoid contaminating public water.

Waste Disposal Method Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved respirator.

Ventilation	Local Exhaust	None required.	Special	No.
	Mechanical (General)	None required.	Other	Adequate to maintain below exposure limit.

Protective Gloves Rubber. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Goggles, smock, apron, proper gloves and eye wash station.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a cool, dry place. Wash thoroughly after handling. Keep container tightly closed when not in use.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.

Do not take internally. Avoid contact with eyes or prolonged contact with skin. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 5	Date 2/11/99	Approved Michael Raszeja	Chemical Safety Coordinator MR
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