

MATERIAL SAFETY DATA SHEET

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Revised 1/02/98
Replaces 3/24/97
Printed 9/14/99

COPPER SULFATE, 5 %
CAROLINA BIOLOGICAL SUPPLY COMPANY

1. PRODUCT DESCRIPTION

Product Name: Copper Sulfate, 5 %
Product Code(s): 20-2500, 20-2501
Size: 30 ml
Chemical Name: Does not apply- product is a mixture
CAS Number: See individual elements below.
Formula: See section 2
Synonyms: None Known
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principle Hazardous Components: Copper Sulfate (CAS# 7758-98-7) 5%
TLV and PEL units: Copper Sulfate: ACGIH-TLV 1 mg(Cu)/m3 (TWA)
OSHA-PEL 1 mg(Cu)/m3 (TWA)

3. HAZARD IDENTIFICATION

Emergency Overview:
Potential Health Effects:
Eyes: May cause irritation.
Skin: May cause irritation.
Ingestion: May cause gastrointestinal discomfort.
Inhalation: May cause irritation to respiratory tract.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
Ingestion - If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.
Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point (Method Used): No information available
HFPA Rating: Health: 1
Fire: 0
Reactivity: 0

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5. FIREFIGHTING PROCEDURES (Cont.)

Extinguisher Media:

Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: Not flammable

Autoignition Temperature: None

Special Firefighting Procedures:

Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: No information available

6. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:

Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbant and containerize for disposal.

7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Store in a tightly closed container when not in use. Avoid prolonged inhalation of vapors. Do not get in eyes, on skin, or on clothing.

Other Precautions: Wash thoroughly after handling. Do not take internally.

8. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type):

A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Preferred
Mechanical (General): Acceptable
Special: No..
Other: No

Protective Gloves:

Rubber, neoprene, PVC, or equivalent.

Eye Protection:

Splash proof chemical safety goggles should be worn at all times.

Other Protective Clothing or Equipment:

Lab coat, eye wash, and safety shower.

9. PHYSICAL DATA

Molecular Weight: No information available

Melting Point: No information available

Boiling Point: No information available

Vapor Pressure: No information available

Vapor Density (Air=1): No information available

Specific Gravity (H₂O=1): No information available

Percent Volatile by Volume: 80%

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9. PHYSICAL DATA (Cont.)

Evaporation Rate (H₂O=1): No information available
Solubility in Water: Complete, product is an aqueous solution
Appearance and Odor: Blue, odorless liquid.

10. REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Extreme temperatures
Incompatibility (Materials to Avoid): Strong oxidizers, Mg.
Hazardous Decomposition Products: Oxides of carbon
Hazardous Polymerization: Will not occur

11. TOXICITY DATA

Toxicity Data:
Effects of Overexposure:
Acute: See section 3
Chronic: Copper Sulfate: Mutation data cited. Reproductive effects data cited. Tumorigenic data cited. Not listed as causing cancer by IARC, NTP or OSHA.
Conditions Aggravated by Overexposure: No information available
Target Organs: No information available
Primary Route(s) of Entry: No information available

12. ECOLOGICAL DATA

EPA Waste Numbers: None

13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.
Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION

Environmentally hazardous substances, liquid, n.o.s. (contains copper sulfate), 9, UN3082, III Label(s) required: CLASS 9

15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory
Hazard Category for SARA Section 311/312 Reporting: Acute

Product or Components	SARA EHS Sec. 302 TPQ	SARA Sec. 313 Chemicals Name List	CERCLA Sec. 103 RQ lbs.	RCRA Sec. 261.33
Copper Sulfate,	No	No Copper compounds	10	No

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15. REGULATORY INFORMATION (Cont.)

20%

16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists
CAS Number..Chemical Services Abstract Number
CERCLA.....Comprehensive Environmental Response, Compensation, and
Liability Act
DOT.....U.S. Department of Transportation
IARC.....International Agency of Research on Cancer
N/A.....Not Available
NTP.....National Toxicology Program
OSHA.....Occupational Safety and Health Administration
PEL.....Permissible Exposure Limit
ppm.....parts per million
RCRA.....Resource Conservation and Recovery Act
SARA.....Superfund Amendments and Reauthorization Act
TLV.....Threshold Limit Value
TSCA.....Toxic Substances Control Act