

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Copper(II) Sulfide

Chemical Formula: CuS

Manufacturer Item Number: CO-1720

Manufacturer: Lorad Chemical Corporation
1200 19th Street North
Saint Petersburg, Florida, 33713
United States of America

Telephone: +1 (727) 826-5511

Fax: +1 (727) 826-5510

Emergency Contact: (800) 255-3924 (US & Canada)
+1 (813) 248-0573 (International)

2. HAZARD IDENTIFICATION

Signal Word: Not a hazardous substance or mixture.

Pictograms: N/A

Hazard Statements: N/A

Precautionary Statements: N/A

HMIS Ratings (0-4)

- Health: 1
- Flammability: 0
- Physical: 0

3. COMPOSITION

Additional Names: Copper Sulfide, Copper Sulphide, Copper Monosulfide

Percentage: 100 wt%

CAS #: 1317-40-4

EC #: 215-271-2

4. FIRST AID PROCEDURES

General Treatment Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.

Special Treatment: No Data Available.

Important Symptoms: No Data Available.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Skin: Wash off with soap and plenty of water.

Eyes: Flush eyes with water as a precaution.

5. FIREFIGHTING MEASURES

Flammability: Not Flammable.

Special Hazards from Substance: Copper Oxides, sulphur oxides

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special Fire Fighting Procedures: Wear self-containing breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled: Use appropriate personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Isolate spill area and provide ventilation. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Environmental Precautions: Do not let product enter drains.

7. HANDLING AND STORAGE

Handling Conditions: Use appropriate personal protective equipment. Ensure adequate ventilation. Handle under inert gas. Moisture sensitive.

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Moisture sensitive.

Work / Hygienic Maintenance: Do not use tobacco or food in the work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide appropriate exhaust ventilation at places where dust is formed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	OSHA	PEL	1.0 mg/m ³	Copper (dust and mists, as Cu) (up to 8-hour time weighted average)
NIOSH	REL	1.0 mg/m ³	Copper (dust and mists, as Cu) (up to 10-hour time weighted average)	
California	PEL	1.0 mg/m ³	Copper (dust and mists, as Cu) California permissible exposure limit for chemical contaminants (Title 8, Article 107)	
OSHA	PEL	0.1 mg/m ³	Copper (fumes, as Cu) (up to 8-hour time weighted average)	
NIOSH	REL	0.1 mg/m ³	Copper (fumes, as Cu) (up to 10-hour time weighted average)	
California	PEL	0.1 mg/m ³	Copper (fumes, as Cu) California permissible exposure limit for chemical contaminants (Title 8, Article 107)	
Threshold Limit Value:	Authority	Basis	Limit	Remarks
	ACGIH	TLV	1.0 mg/m ³	Copper (dust and mists, as Cu) (up to 8-hour time weighted average)

ACGIH TLV 0.2 mg/m³ Copper (fumes, as Cu) (up to 8-hour time weighted average)

Special Equipment: No Data Available.

Respiratory Protection: Respirator protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protective Gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection: Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Body Protection: Wear appropriate protective clothing.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	Black	Molecular Weight:	95.61 g/mol
Forms:	Powder	Density:	4.6 g/cm ³
Odor:	No Data Available.	pH:	No Data Available.
Water Solubility:	No Data Available.	Auto-ignition Temperature:	No Data Available.
Boiling Point:	No Data Available.	Evaporation Rate:	No Data Available.
Melting Point / Freezing Point:	> 220°C (> 428°F) (decomposes)	Flammability or Explosive Limits:	No Data Available.
Vapor Pressure:	No Data Available.	Partition Coefficient: n-octanol/ water	No Data Available.
Vapor Density:	No Data Available.	Decomposition Temperature:	No Data Available.
Flash Point:	No Data Available.	Viscosity:	No Data Available.

10. REACTIVITY

Stability:	Stable under recommended storage conditions.
Reacts with:	Strong oxidizing agents, strong acids
Incompatible Conditions:	No Data Available.
Hazardous Decomposition Products:	Hazardous decomposition products formed under fire conditions include sulphur oxides and copper oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	Eyes: No Data Available.
	Skin: No Data Available.
	Ingestion: No Data Available.
	Inhalation: No Data Available.

Chronic Toxicity	Skin Corrosion / Irritation: No Data Available. Serious Eye Damage / Irritation: No Data Available. Respiratory / Skin Sensitization: No Data Available. Mutagenic Effects: No Data Available. Reproductive / Teratogenic Effects: No Data Available. Specific Target Organ Toxicity: (single exposure) Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Specific Target Organ Toxicity: (repeated exposure) Symptoms of chronic copper poisoning is may include: hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. Aspiration Hazard: No Data Available. Other Adverse Effects: In addition to other effects listed, it has also been reported that copper poisoning may lead to hemolytic anemia and accelerates arteriosclerosis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Carcinogenicity:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:	No Data Available.
Persistence and degradability:	No Data Available.
Bioaccumulative potential:	No Data Available.
Notes:	No Data Available.

13. DISPOSAL CONSIDERATIONS

Disposal:	Offer surplus and non-recyclable materials to a licensed disposal company. Dispose of in accordance with local, state, or national regulations.
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14. TRANSPORTATION DATA

Hazardous:	DoT: Not Dangerous Goods. IMDG: Not Dangerous Goods. IATA: Not Dangerous Goods.
Pictogram:	N/A

Hazard Class:	N/A
Packing Group:	N/A
UN Number:	N/A
US DoT	Proper Name: N/A
	Marine Pollutant:
IMDG	Proper Name: N/A
	EMS-No:
IATA	Proper Name: N/A

15. REGULATORY INFORMATION

Toxic Substance Control Act	Listed
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimus) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	No SARA Hazards.
Massachusetts Right to Know Components	No components are subject to the Ma. Right to Know Act.
Pennsylvania Right to Know Components	Copper(II) Sulfide (CAS No. 1317-40-4)
New Jersey Right to Know Components	Copper(II) Sulfide (CAS No. 1317-40-4)
California Prop. 65 Components	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

16. OTHER INFORMATION

Copyright 2020 Lorad Chemical Corporation. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

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