

MATERIAL SAFETY DATA SHEET

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MSDS No. CC 420
Effective Date July 1, 1986

SECTION I NAME

Product COPPER, METAL
Chemical Synonyms Copper: shot, granules, powder, sheet, foil, turnings.
Formula Cu
Unit(s) Size 30 grams to 2.5 Kg.
C.A.S. No. 7440-50-8

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC
800-424-9300
Day 716-226-6177
Night 716-334-4222
NFPA HAZARD RATING
LEAST SLIGHT MODERATE HIGH EXTREME
0 1 2 3 4

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Copper Metal: shot, granules, powder, sheet, foil, turnings.	100%	Fume 0.2 mg/m ³ Dust and mist, as Copper 1 mg/m ³ .

CAUTION! DO NOT BREATHE METAL DUST.

SECTION III PHYSICAL DATA

Melting Point (°F)	1083°C	Specific Gravity (H₂O = 18.92 at 20°C)	
Boiling Point (°F)	2324°C	Percent Volatile by Volume (%)	Non-volatile (NA)
Vapor Pressure (mm Hg)	1 mm @ 1628°C	Evaporation Rate	= 1 Non-volatile (NA)
Vapor Density (Air = 1)	Data not listed		
Solubility in Water	Insoluble		
Appearance and Odor	Reddish, lustrous metal in the form of shot, granules, powder, sheet, foil, turnings.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-combustible (NA)	Flammable Limits in Air % by Volume	Lower	Upper
Extinguisher Media	Dry sand, earth, dolomite, and sodium chloride.			

SPECIAL FIREFIGHTING PROCEDURES

Use no water in fighting fires. In fire conditions, wear a NIOSH-approved self-contained breathing apparatus and protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products. Dangerous in dispersed form when exposed to flame or sparks or by chemical reaction with oxidizers.

SECTION V HEALTH HAZARD DATA

Threshold Limited Value TWA: 1.0 mg/m³ for 8 hour working day. Copper (fume) T.L.V. 0.2 mg/m³.

Effects of Overexposure
INHALATION: Of high concentrations of the dust can cause intense sneezing, nausea, weakness and fever.
SKIN: May cause skin irritation.

Emergency and First Aid Procedures

INHALATION: Remove to fresh air. If illness or discomfort develops, get medical attention.
SKIN: Flush with water. If irritation develops, get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	

Incompatibility (Materials to avoid) Strong acids, bromates, chlorates, iodates and halogens.

Hazardous Decomposition Products Nitrogen oxide if reacted with nitric acid.

Hazardous Polymerization	Conditions to Avoid
May Occur	Will Not Occur
	x

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Sweep up and place in a suitable container. If copper powder is involved, avoid making dust clouds by sprinkling moderately with damp sand.

Waste Disposal Method Dispose of in an approved chemical landfill or contract a licensed chemical waste disposal service.

Discharge, treatment, or disposal may be subject to federal, state, or local laws.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None should be needed in normal laboratory handling. If dusty conditions prevail, work in a ventilation hood or wear a NIOSH-approved dust mask.

Ventilation	Local Exhaust	Yes-for dust	Special	No
	Mechanical (General)	Yes-fume or dust	Other	No

Protective Gloves Light plastic
Eye Protection Chemical safety glasses.

Other Protective Equipment Smock, apron, proper gloves, eye wash station and a ventilation hood.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing Store in a cool, dry place avoiding contact with fumes or hot surfaces. Wash thoroughly after handling.

Keep container tightly closed when not in use.

Other Precautions Read label on container before using.

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

Rev. No. No. 1	Date 1/12/87	Approved Alexander Piccirilli	Chemical Safety AP Coordinator
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D.O.T. NON-REGULATED

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