MATERIAL SAFETY DATA SHEET

CC 525
July 1, 1986

SECTION I NAME

Product	CUPRIC OXIDE, BLACK
Chemical Synonyms	Copper II Oxide
Formula	CuO
Unit(s) Size	100, 500 grams, 2.5 kg.
C.A.S. No.	1317-38-0

CHEMTREC
800-424-9300
Day 716-226-6177
Night 716-334-4222

NFPA HAZARD RATING

Health	2
Fire	0
Reactivity	0

LEAST 0 | SLIGHT 1 | MODERATE 2 | HIGH 3 | EXTREME 4

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Cupric Oxide	100%	See Section V
WARNING! IRRITANT TO SKIN AND MUCOUS MEMBRANES		
HARMFUL IF SWALLOWED OR INHALED.		

SECTION III PHYSICAL DATA

Melting Point (°F)	2419°F (1326°C)	Specific Gravity ($H_2O = 1$)	6.4 @ 20°C
Boiling Point (°F)	Decomposes	Percent Volatile by Volume (%)	Non-volatile (NA)
Vapor Pressure (mm Hg)	Negligible as solid	Evaporation Rate (= 1)	NonOvolatile (NA)
Vapor Density (Air = 1)	2.75		
Solubility in Water	Practically insoluble		
Appearance and Odor	Black to brownish-black powder or granules; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

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

SPECIAL FIREFIGHTING PROCEDURES

Cupric Oxide will not burn, nor will it support combustion. In fire conditions, wear a NIOSH-approved self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products or dust; can react vigorously with oxidizing materials.

D.O.T. NON-REGULATED

frey SCIENTIFIC

FREY SCIENTIFIC

905 HICKORY LANE MANSFIELD OHIO 44905

MSDS No.
Effective Date

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

SECTION V HEALTH HAZARD DATA

Threshold Limited Value

(Air) As copper metal: 1.0 mg/m³ for 8 hr. working day. Copper (fume) TLV 0.2 mg/m³.

Effects of Overexposure

INHALATION: Dust may cause upper respiratory tract irritation, sneezing, coughing, digestive disorder, and fever. Prolonged exposure may result in congestion of nasal mucous membranes, ulceration of nasal septum, and anemia. EYES: Causes irritation, conjunctivitis, ulceration of eyelids, and clouding of cornea. SKIN: Causes Irritation. May cause allergic skin reaction.

Emergency and First Aid Procedures

INHALATION: Remove to fresh air. Get medical attention. EYES: Immediately flush eyes and under eyelids thoroughly with water for 15 minutes. Get medical attention. SKIN: Flush with water. INGESTION: If conscious, give one or two glasses of water to drink. Induce vomiting and call physician.

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SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid
	Stable	X	Concentrated Nitric acid.

Incompatibility (Materials to avoid) Aluminum; Boron; Cesium Acetylene Carbide; Hydrazine; Magnesium; Phospham; Potassium; Sodium; Titanium; Zirconium; Rubidium Acetylene Carbide.

Hazardous Decomposition Products Copper fume or dust.

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.

Waste Disposal Method

Dispose of in an approved chemical landfill or contract with a licensed chemical waste disposal agency.

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 required in normal laboratory use. If dusty conditions prevail use an NIOSH-approved dust mask.			
Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	No.
Protective Gloves	Rubber.	Eye Protection	Chemical Safety glasses.	
Other Protective Equipment	Safety glasses, smock, apron, proper gloves, ventilation hood, eye wash station.			

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Keep container tightly closed when not in use.

Keep container tightly closed. Store in a dry place. Wash thoroughly after handling.

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.	Date	Approved	
No. 1	1/12/87	[signature]	Chemical Safety Coordinator