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MATERIAL SAFETY DATA SHEET

MSDS No.: CC0413
Revision Date: April 1, 2008
Approved by: James A. Bertsch

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Section 1 Chemical Product and Company Information

Product	**COPPER METAL POWDER**
Synonyms	N/A

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300

Section 2 Composition / Information on Ingredients

Chemical Name	CAS #	%	TLV Units
Copper	7440-50-8	100%	TWA: 1.0 mg/m^3 dusts and mists as Cu TWA: 0.2 mg/m^3 fume (ACGIH 2001)

Section 3 Hazards Identification

Emergency Overview

CAUTION!
DO NOT BREATHE METAL DUST.
May be harmful if swallowed. Harmful if inhaled as dust or fume. May cause irritation to skin and eyes. Avoid contact with Nitric acid, emits toxic fumes of nitrogen oxides. Target organs: Liver, kidneys.

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

Health	0
Fire	0
Reactivity	0
Contact	0

HMIS *

Section 4 First Aid Measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN CONTACT: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

General information: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Non-flammable and non-combustible solid, but air-born dust may ignite. Do not use water to fight fires involving this material.

Extinguishing Media: Use triclass, dry chemical fire extinguisher.
Flash Point: Non-combustible.
Autoignition temperature: N/A
Explosion Limits: Lower: N/A **Upper:** N/A

NFPA

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None listed.

Section 6 Accidental Release Measures

Use proper personal protective equipment as indicated in Section 8. Remove all sources of ignition. Provide adequate ventilation. Recover for use if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water. Avoid runoff into storm sewers and ditches which lead to waterways.

Section 7 Handling & Storage GENERAL STORAGE CODE GREEN

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.
Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale dust. Wash thoroughly after handling. Remove and wash clothing before reuse.
Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8 Exposure Controls / Personal Protection

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None needed in normal laboratory handling. If dusty conditions prevail, work in a ventilation hood or wear a NIOSH/MSHA-approved dust mask.

Section 9 Physical & Chemical Properties

Physical state: Solid.
Appearance: Reddish-brown, lustrous metal.
Odor: No odor.
pH: N/A
Vapor pressure (mm Hg): 1 mm @ 1628°C
Vapor Density (Air = 1): N/A
Evaporation rate (Butyl acetate = 1): N/A
Viscosity: N/A
Boiling point: 2595°C (4703°F)
Freezing / Melting point: 1083°C (1981°F)
Decomposition temperature: N/A
Solubility: Insoluble.
Specific gravity (H_2O = 1): 8.92 @ 20°C
Percent volatile (%): N/A
Molecular formula: Cu
Molecular weight: 63.55

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition. Acids.

Incompatibilities with other materials: Strong acids, oxidizers, alkalies, bromates, chlorates, iodates, sodium azide, acetyline and halogens.

Hazardous decomposition products: Nitrogen oxide is reacted with nitric acid.

Section 11 Toxicological Information

Effects of overexposure: Inhalation of this material can cause intense sneezing, nausea, vomiting, weakness and metal fume fever. Ingestion of this material may cause moderate irritation to the stomach lining. If product gets into eyes, corneal abrasions may occur. May cause irritation on contact with skin. Repeated or prolonged exposure may cause liver and kidney damage, with an increased risk with Wilson's disease.

ORL-RAT LD50: N/A
RTECS #: GL5325000

Section 12 Ecological Information

Data not yet available.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: N/A
Shipping name: Not Regulated.
Hazard class: N/A
Packing group: N/A
Exceptions: N/A

Section 15 Regulatory Information

TSCA-listed, EINECS-listed (231-159-6), RCRA code D001, Ca Prop 65-Not listed.

Section 16 Additional Information