40 S. Linden Street, Duquesne, PA 15110 USA

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MATERIAL SAFETY DATA SHEET COMPLIES WITH 29 CFR 1910.1200. OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 04-29-96

#### CHEMICAL IDENTITY

LABEL IDENTITY
CHEMICAL NAME/SYNONYMS
FORMULA
CHEMICAL FAMILY
CALCULATED MOLECULAR WEIGHT

COPPER
CO

CAS REGISTRY NUMBER 7440-50-8, LISTED IN THE TSCA INVENTORY

HAZARDOUS INGREDIENTS COPPER

%: 100 TLV: 1mg/m3 OSHA/PEL: 1mg/M3

## PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR Reddish pieces or powder, no odor

**BOILING POINT** 2595 DENSITY (gm/cc) 8.96 VAPOR PRESSURE @ 20° NA % VOLATILE BY VOLUME (%) NΑ **REACTION WITH WATER** None **EVAPORATION RATE (H20=1)** NA SOLUBILITY IN WATER Insoluble MELTING POINT 1083

# FIRE AND EXPLOSION HAZARD DATA

FLASH POINT NA
AUTOIGNITION TEMPERATURE (°C) NA

FLAMMABILITY Slight for fine powder

EXTINGUISHING MEDIA Agents for metal fires such as dolomite, TEC

graphite, MET-L-X.

SPECIAL FIRE FIGHTING PROCEDURES Do not use water on metal fires.

UNUSUAL FIRE & EXPLOSION HAZARDS Powder below 50 micron size range are

weakly explosive in air. Not easily ignited by

sparks.

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**HEALTH HAZARD INFORMATION** 

TOXICITY DATA oral-rat TDLO: 152mg/kg

oral-hmn TDLO: 120mg/kg

ipl-rat TDLO: 100mg/kg

HMIS RATING:

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTION: E

ROUTES OF ENTRY INHALATION: Yes

SKIN: ND INGESTION: Yes

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Wilson's Disease

EFFECTS OF OVEREXPOSURE (acute and chronic):

INHALATION: fumes and dusts of copper can cause irritation of the upper respiratory

tract, metallic taste in the mouth, nausea and metal fume fevers.

DERMAL/EYE: repeated skin contact has been reported to cause keratinization of the

hands. Fine powders are mild eye irritants.

OTHER: ingestion of copper metal may cause G. I. Disturbances.

CARCINOGENICITY: None NTP: Nd IARC MONOGRAPHS: Nd OSHA REGULATE: Nd

**EMERGENCY FIRST AID PROCEDURES:** 

INGESTION: induce vomiting, seek medical attention

INHALATION: Remove to fresh air, provide symptomatic treatment, watch for signs

of metal fume fever.

SKIN CONTACT: Wash affected area with soap and water. EYE CONTACT: Flush with water, seek medical attention.

#### REACTIVITY DATA

**STABILITY** 

CONDITIONS CONTRIBUTING TO UNSTABILITY

INCOMPATIBILITY (MATERIALS TO AVOID)

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUD POLYMERZATION

**CONDITIONS TO AVOID** 

**Stable** 

None

Strong acids, H2O2, magnesium, Cl2,

acetylene, halogens

NO2 in contact with nitric acid

**May Occur** 

None

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### **COPPER**

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#### SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Sweep or vacuum solids. Do not raise dust.

WASTE DISPOSAL METHOD:

Reclaim for scrap value.

## SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION

Any respirator approved for dusts with TLV's

not less than 0.05mg/m3
Maintain below TLV

LOCAL EXHAUST
MECHANICAL (general)
Maintain below
Not advised

NA NA

SPECIAL OTHER

PROTECTIVE GLOVES Any glove to limit skin contact

EYE PROTECTION Safety glasses

OTHER PROTECTIVE EQUIPMENT None

## **SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:

None.

TRANSPORTATION REQUIREMENTS DOT CLASS: Not Classified

UN NUMBER: N. C. IMCO CLASS: N. C.

OTHER:

PRECAUTIONARY LABELING NONE

THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, **ANGSTROM SCIENCES** MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR THE RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

NA= NOT APPLICABLE

**ND= NO DATA FOUND**