



## Material Safety Data Sheet

**Identity:** Copper

**Formula:** Cu

### SECTION I - GENERAL INFORMATION

**Manufacturer:** Advanced Engineering Materials Limited (AEM)

The information below is believed to be accurate and represents the best information available to AEM. However, AEM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

### SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>CAS #</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>	<u>%</u>
7440-50-8	N/A	N/A	100 wt%

### SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

**Physical States:** Solid

**Boiling Point:** N/A

**Vapor Pressure (vs. air or mm Hg):** N/A

**Melting Point:** 1083 °C

**Specific Gravity: (H<sub>2</sub>O=1):** N/A

**Evaporation Rate:** N/A

**Flash Point:** 2562 °C

**Solubility in Water:** Insoluble

**Stability:** Stable under recommended storage conditions

**Reacts With:** Acids, Oxidizing agents

**Incompatible Conditions:** Protect against electrostatic charges

**Hazardous Decomposition Products:** Metal oxide fume, copper oxides

**Appearance and odor:** Metallic light brown

### SECTION IV - FIERST AID PROCEDURES

**General Treatment:** Seek medical attention if symptoms persist.

**Special Treatment:** None

**Important Symptoms:** None

**Inhalation:** Remove victim to fresh air. Supply oxygen if breathing is difficult.

**Ingestion:** Seek medical attention



**Skin:** Wash affected area with mild soap and water. Remove any contaminated clothing.

**Eyes:** Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

## SECTION V - FIREFIGHTING MEASURES

**Flammability:** Flammable as powder only

**Extinguishing Media:** Do not use water for metal fires – use CO<sub>2</sub>, sand, extinguishing powder.

**Spec. Fire Fighting Procedure:** Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

## SECTION VI - ACCIDENTAL RELEASE MEASURES

**If Material Is Released/Spilled:** Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.

**Environmental Precautions:** Isolate runoff to prevent environmental pollution.

## SECTION VII - HANDLING AND STORAGE

**Handling Conditions:** Wash thoroughly after handling.

**Storage Conditions:** Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.

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

**Ventilation:** Provide sufficient ventilation to maintain concentration at or below threshold limit.

## SECTION VIII - EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible Exposure Limits:** 0.1 mg/m<sup>3</sup> as Cu, metal fume, long-term value

1 mg/m<sup>3</sup> as Cu, metal dusts and mists, long-term value

**Threshold Limit Value:** 0.2 mg/m<sup>3</sup> as Cu, metal fume, long-term value

1 mg/m<sup>3</sup> as Cu, metal dusts and mists, long-term value

**Special Equipment:** None

**Respiratory Protection:** Dust Respirator

**Protective Gloves:** Rubber gloves

**Eye Protection:** Safety glasses or goggles

**Body Protection:** Protective work clothing. Wear close-toed shoes and long sleeves/pants.



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## SECTION IX - TOXICOLOGICAL INFORMATION

### ***Potential Health Effects:***

*Eyes:* Causes serious eye damage

*Skin:* May cause irritation

*Ingestion:* May cause irritation

*Inhalation:* May cause irritation

*Chronic:* N/A

***Signs & Symptoms:*** N/A

***Aggravated Medical Conditions:*** N/A

***Median Lethal Dose:*** >5000 mg/kg for mouse by mouth

***Carcinogen:*** The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.

***EPA-D:*** Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data are available.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established