



# MATERIAL SAFETY DATA SHEET

## COPPER POWDER, SPHERICAL

C.A.S. Number: 7440-50-8

### SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT/MATERIAL:** CU-110/112/115

**MANUFACTURER/DISTRIBUTOR:** Atlantic Equipment Engineers  
**ADDRESS:** 13 Foster Street, P.O. Box 181  
 Bergenfield, NJ 07621

**TELEPHONE/FAX NUMBERS:** (201) 384-5606 / (201) 387-0291

**EMERGENCY CONTACT:** CHEMTREC (800) 424-9300  
 (703) 527-3887(Outside the U.S.A.)

**SYNONYMS:** COPPER POWDER

### SECTION 2 – INGREDIENTS

| <u>Material or component</u> | <u>CAS Number</u> | <u>Percent %</u> | <u>Threshold Limit Value</u>  |
|------------------------------|-------------------|------------------|---|
| Copper                       | 7440-50-8         | 100              | <u>OSHA PEL</u><br>1 mg/m <sup>3</sup> dust<br>0.1 mg/m <sup>3</sup> fume |

Chemicals listed as carcinogen or possible carcinogen:

|      | YES | NO |
|------|-----|----|
| NTP  |     | X  |
| IARC |     | X  |
| OSHA |     | X  |

Section 313 information – see Page 3

### SECTION 3 – CHEMICAL & PHYSICAL PROPERTIES

**Boiling Point:** 2567°C

**Melting point:** 1083°C

**Solubility in water:** None

**% volatile (vol.):** N.A.

**Specific gravity (water = 1):** N.A.

**Vapor pressure (mmHg):** N.A.

**Evaporation rate:** N.A.

**pH:** N.A.

**Appearance and odor:** Reddish color and odorless.

**Other:** N.A.

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### CU-110/112/115

#### SECTION 4 – FIRE & EXPLOSION HAZARDS

Flash point (method): N.A.  
 Ignition temp: Cloud: 700°C  
 Layer: N.A.  
 Minimum Explosive Concentration: N.A.  
 Extinguishing media: Class D extinguisher, dry sand or other inert extinguishing material.  
 Special fire fighting procedures: Gently cover the burning mass with sand or inert material and allow to cool.  
 Unusual fire & explosion hazards: Copper powder with a particle size range of less than 74 microns is classified as weakly explosive by the U.S. Bureau of Mines, Report RI-6516. When present as a dust cloud will not explode readily in air and is not easily ignited by sparks.

#### SECTION 5 – ACUTE HEALTH EFFECTS / ROUTES OF ENTRY

Inhalation: Can cause sneezing, nausea, weakness, metal fume fever with flu like symptoms.  
 Skin contact: Can cause irritation and dermatitis.  
 Eye contact: Can cause irritation.  
 Ingestion: Can cause nausea, vomiting, diarrhea, metal fume fever with flu like symptoms.  
 Supplemental information: Chronic affects, see Page 3.

#### SECTION 6 – FIRST AID PROCEDURES

Inhalation: Remove from exposure.  
 Skin contact: Wash affected skin with soap and water. Consult a physician.  
 Eye contact: Flush eyes with water at least 15 minutes. Consult a physician.  
 Ingestion: Consult a physician immediately.

#### SECTION 7 – REACTIVITY

|                           |    |   |                   |        |                                  |           |                |   |
|---------------------------|----|---|-------------------|--------|----------------------------------|-----------|----------------|---|
| <u>Product corrosive:</u> |    |   | <u>Stability:</u> |        | <u>Hazardous polymerization:</u> |           |                |   |
| Yes                       | No | X | Unstable          | Stable | X                                | May occur | Will not occur | X |

Conditions and materials to avoid: Strong acids, bromates, chlorates, iodates.  
 Hazardous decomposition products: Nitrogen oxide if reacted with nitric acid.

#### SECTION 8 – SPILLS, LEAKS, HANDLING & STORAGE

Spill & leak procedures: Wear protective clothing, goggles and a NIOSH approved respirator. Sprinkle moderately with damp sand and collect for disposal avoiding dust clouds as much as possible.  
 Waste disposal method: Put in a closed container for disposal.  
 (Disposer must comply with Federal, state or local waste disposal laws)  
 Handling and storage methods: Store in a cool, dry place avoiding contact with heat and acids. Avoid creating dust clouds.

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**SECTION 9 – SPECIAL PRECAUTIONS**

**Ventilation requirements:** Local exhaust, minimum face velocity of 60 f.p.m.  
**Respiratory protection:** Use NIOSH/MSHA approved respirators.  
 Use supplied air respiratory protection in confined or enclosed spaces if needed.  
**Protective clothing:** Use chemical resistant gloves and apron to avoid prolonged or repeated skin contact.  
**Additional protective measures:** Goggles. Wash after use and before eating/drinking.

**SECTION 10 – OTHER INFORMATION:**

**ACUTE HEALTH HAZARDS:** Overexposure to fume, dusts and mists may result in sneezing, nausea, weakness. Acute over-exposure will result in "metal fume fever" with flu like symptoms lasting 24 to 48 hours.

**CHRONIC AFFECTS:** Anemia, "Lead Line" on gums, possible nervous system damage, atrophic changes in mucous membranes.

**PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED:** Pre-existing respiratory, kidney disease, Wilson's disease.

**TRANSPORTATION:** DOT: Shipment by motor vehicle, rail car or aircraft not regulated when transported in non-bulk packages (less than 880 pounds).  
 Bulk shipment – RQ. Environmentally Hazardous Substance.  
 Solid (copper powder), 9, UN3077, III marine pollutant.  
 IMDG: Shipment by vessels: marine pollutant – use description:  
 Environmentally Hazardous Substance, Solid, N.O.S. (copper metal powder), Class 9, UN3077, P.G. 111, marine pollutant.

**SECTION 313 SUPPLIER NOTIFICATION:** This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

| <u>CAS #</u> | <u>Chemical Name</u> | <u>Percent Weight</u> |
|--------------|----------------------|-----------------------|
| 7440-50-8    | Copper               | 100                   |

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Section 313 information – see Page 3

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**% volatile (vol.):** N.A.

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**Vapor pressure (mmHg):** N.A.

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**Appearance and odor:** Reddish color and odorless.

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|                           |    |   |                   |        |                                  | Will not occur |
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