

# Metal Powders USA



## Safety Data Sheet

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Product name  
**COPPER POWDER**

### 1. IDENTIFICATION OF THE SUBSTANCE/MANUFACTURER

Product name: Copper Powder -325 mesh

MetalPowdersUSA, INC  
11010 Harbor Hill Dr NW  
Suite #B208  
Gig Harbor, WA 98332 USA

### 2. HAZARD IDENTIFICATION

#### Health Hazards

Acute Toxicity, Oral - Category 4  
Acute Toxicity, inhalation - Category 4  
Irritant, Eye - Category 2B  
Copper Fume: Irritant, Respiratory - Category 3

#### Environmental Hazards

Acute Aquatic Toxicity - Category 1  
Acute Chronic Toxicity - Category 1

#### Physical Hazards:

None Known

#### Hazardous Statements:

H302- Harmful if swallowed  
H335- May cause respiratory irritation  
H320- Causes eye irritation  
H410- Very toxic to aquatic life with long lasting effects.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

| Ingredient      | Percentage | EC Number | CAS No.   |
|-----------------|------------|-----------|-----------|
| Metallic Copper | >99%       | 231-159-6 | 7440-50-8 |

### 4. FIRST AID MEASURES

INHALATION Remove to fresh air. Lay patient down. cover with blanket.  
INGESTION Give 200-300 ml water to drink. DO NOT induce vomiting.  
SKIN CONTACT Remove contaminated clothing and wash with mild soap and water.  
EYE CONTACT Flush eyes with large volumes of fresh water lifting upper and lower eyelids occasionally. Seek medical attention if irritation develops.

#### MEDICAL NOTES

If any adverse symptoms persist seek immediate medical attention.

### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media CO2, ABC extinguisher, or water spray.  
Material is non-flammable. Use firefighting measures appropriate to surrounding materials.  
Special Fire Fighting Procedures:  
Additional Information: Collect contaminated fire fighting water separately. It must not enter the sewer system.  
Personal Protective Equipment: Wear self-contained breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Spilled material may produce dust hazard if not handled correctly. Wear appropriate personal protective equipment: coveralls, gloves & eye protection.

Environmental precautions

Do not allow to enter drains or watercourses. If the product enters drains or sewers, immediately inform the local water company. Where there is contamination of streams, rivers or lakes, contact local agency with responsibility for the environment.

Methods for cleaning up

Contain spillages and clean up with vacuum or conventional tools and attempt to minimize dusting. Place in suitable container for recycling or disposal in accordance with local and national waste regulations.

## 7. HANDLING AND STORAGE

Handling:

Only use in a well-ventilated area and prevent the creation of dusts. If concentrations exceed the occupational exposure limits use suitable respiratory protection.

Storage:

Store in cool, dry, well-ventilated place. Keep away from food, drink and animal feeding stuffs.

Common uses:

Powder metal parts, Industrial chemicals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Copper Powder as dust & mists:**

Occupational Exposure Standards

OSHA PEL = 1.0 mg/m<sup>3</sup>  
ACGIH TLV = 1.0 mg/m<sup>3</sup>  
NIOSH IDLH = 100 mg/m<sup>3</sup>

IDLH - Immediately dangerous to life and health

**Copper Fume:** OSHA PEL = 1.0 mg/m<sup>3</sup>  
ACGIH TLV = 0.2mg/m<sup>3</sup>  
NIOSH IDLH = 100 mg/m<sup>3</sup>

**Occupational Exposure controls:**

All personal protective equipment, including respiratory equipment, used to control exposure to hazardous substances must be selected to meet the requirements of national personal protective equipment regulations.

**Ventilation:**

To keep below the USA OSHA and EU exposure limits, use general dilution type ventilation.

**Personal Protection / Respiratory Protection**

Cartridge type particulate filter respirator or dust-mask conforming to USA NIOSH, Refer to Respiratory Protective Devices approved by NIOSH under 42 CFR 84 and the appropriate European standard.

**Skin Protection:**

Wear hand protection if skin contact is probable and skin is sensitive. Long sleeve shirt(s) if contact is probable and skin is sensitive

**Eye Protection**

Safety glasses or goggles.

**Environmental Protection:**

Do not allow to enter drains or watercourses

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Reddish to Salmon Color.

Odor None

Boiling Point 2580°C @ 760 mmHg

Melting Point 1083°C

Specific Gravity (h20=1) 8.94

Vapor Pressure: NA  
Vapor Density: NA  
Evaporation Rates: NA  
Solubility in Water: Negligible (<0.1%)  
Percent Volatile (v/v) 0%

## 10. STABILITY AND REACTIVITY Stable

Conditions and Materials to avoid:

Copper is explosively incompatible with sodium azide. Copper dusts may react with acetylene gas to form copper acetylides, which are sensitive to shock. Copper mists may react with magnesium to form flammable hydrogen gas.

Hazardous Decomposition Products: None Identified.

Hazardous Polymerization: Will Not Occur

## 11. TOXICOLOGICAL INFORMATION

Copper is an essential element of mammalian metabolism. Copper metal has little or no serious toxicity. The most common adverse effect associated with copper is the acute inhalation of copper fume during refining or welding. Inhalation of copper fume or dust may result in metal fume fever, which is characterized by upper respiratory irritation, chills, metallic or sweet taste, nausea, and aching muscles. Attacks usually begin after 4-8 hours of exposure and last only 24-48 hours. Inhalation of fumes has been reported to sometimes cause discoloration to the skin and hair. Nausea and vomiting may result if larger amounts of copper metal are ingested. This is probably due to the conversion of the swallowed metal copper to its irritating salts. It is unlikely that poisoning by ingestion in industry would progress to a serious point because small amounts induce vomiting, emptying the stomach of copper salts. High airborne concentrations of copper metal would be expected to cause mechanical irritation of the eyes and respiratory tract. Metallic copper may cause keratinization of the hands and soles of the feet, but it is not commonly associated with industrial dermatitis.

No component of this product present at levels greater than 0.1% is identified as a carcinogen by the US National Toxicology Program, the US Occupational Safety and Health Act, or the International Agency for Research on Cancer (IARC).

## 12. ECOLOGICAL INFORMATION

Toxic to fish and other aquatic organisms.  
Prevent from entering drains, sewers, and surface water.

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## 13. DISPOSAL CONSIDERATIONS

PACKAGING:  
PRODUCT:

Dispose of in accordance with procedures applying to the disposal of the product.  
Dispose of surplus and contaminated materials (including sawdust) at an approved landfill or in accordance with tother national or regional provisions.

## 14. TRANSPORT INFORMATION

US DOT

Not Regulated. Class 9 materials do not require placarding for USA ground transport (49 CFR 172.504 (F) (9)). *Exceptions*, except when all or part of the transportation is by vessel, the requirements specific to marine pollutants do not apply to non-bulk packaging's transported by motor vehicle, rail car, or aircraft (49 CFR 171.4(c)). Permissive labelling is allowed by USA DOT (49 cfr 172.401(c)).

Proper Shipping Name:

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS (copper) Class 9.PG III, MARINE POLLUTANT.

## 15. REGULATORY INFORMATION

US EPA EPCRA Section 313 Reportable Product - (contains copper)  
US EPA Reportable Quantity: 5,000 lbs (2270 kg)  
All chemical constituents of these products are listed on the TSCA inventory of chemical substances maintained by the US Environmental Protection Agency (EPA)

## 16. OTHER INFORMATION

Keep out of reach of children. Read and follow all label instructions. This information is based on our present knowledge. However, this is not a guarantee of specific product features. It is the user's responsibility to satisfy themselves as to the suitability and completeness of this information for their own particular use.

This Safety Data Sheet has been established in accordance with Directive nr 1907/2006/EC.  
Classification references: Directive 67/548/EEC and Directive 99/45/EEC.

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