



Copper (Pellets, Sputter Targets)

1. Product Identification

Trade Name: Copper (Pellets, Sputter Targets)
Chemical Formula: Cu
Recommended Use: Surface coating

2. Hazards Identification

Signal Word: None in provided form

Hazard Statements: Not Classified in provided form

Precautionary Statements: P261 Avoid breathing dust/fume/vapor
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Ratings (0-4): Bulk

Health:	0
Flammability:	0
Physical:	0

3. Composition

Chemical Family: Metal
Additional Names: None

Copper (Cu):

Percentage:	100 wt%
CAS #:	7440-50-8
EC #:	231-159-6

4. First 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.

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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

5. Firefighting Measures

Flammability:	This product is not flammable in current form. Flammable as powder only
Extinguishing Media:	Do not use water for metal fires – use CO ₂ , 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.

6. 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.

7. 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.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	0.1 mg/m ³ as Cu, metal fume, long-term value 1 mg/m ³ as Cu, metal dusts and mists, long-term value
Threshold Limit Value:	0.2 mg/m ³ as Cu, metal fume, long-term value 1 mg/m ³ 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

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

9. Physical and Chemical Characteristics

Color: Metallic light brown
Form: Pellets, Sputtering target, Custom parts
Odor: Odorless
Water Solubility: Insoluble
Boiling Point: N/A
Melting Point: 1083 °C
Flash Point: 2562 °C
Autoignition Temperature: N/A
Density: 8.94 g/cc
Molecular weight: 63.55 g/mol

10. Reactivity

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

11. Toxicological Information

Potential Health Effects:
Eyes: Based on available data the classification criteria are not met
Skin: Based on available data the classification criteria are not met
Ingestion: Based on available data the classification criteria are not met
Inhalation: Not relevant- solid Based on available data the classification criteria are not met
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.

12. Ecological Information

Aquatic Toxicity: Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment
Persistent Bioaccumulation Toxicity: No

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Very Persistent, Very Bio-accumulative: No
Notes: May cause long lasting harmful effect on aquatic life.
Do not allow material to be released to the environment without proper governmental permits.
Also poisonous for fish and plankton in water bodies in powder form.
Avoid transfer into the environment.

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: No
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

Hazard Class: No transport warning sign required.

Packing Group: Not applicable
UN Number: Not applicable
Proper Shipping Name: Not applicable

15. Regulatory Information

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
Sec 313 Emission Reporting: None of the ingredients are listed or exempt

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. **No warranty, guarantee or representation is made to its accuracy, reliability or completeness.** These materials should only be handled by, or under the direct supervision of a “technically qualified individual”, as defined in TSCA regulations 40 CFR 710.3(ee). The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products

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