

Oxygen Free Copper

Previous Revision: September, 2014

1 Identification

Product Name: Oxygen Free Copper

Recommended use and restrictions on use: Soluble anode for electroplating

Manufacturer Name: Jiangnan Copper

Distributor: Chemerizer.Co.,Ltd.

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Samutsakorn 74130

Telephone: (+66) 2 8135572 to 4

Website: www.chemerizer.com

2 Hazard(s) Identification

GHS Classification:

Health None

Environmental None

Label content: None

Symbols: None

Hazard Statements None

Precautionary Statements Wear protective gloves.



3 Composition/Information on Ingredients

English name: Phosphorized Copper

Component	CAS Number	% Content
Copper	7440-50-8	>99.9

4 First Aid Measures

Eye: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing.

Skin: Wash with soap immediately.

Inhalation: If affected, remove individual to fresh air.

Ingestion: Should small pieces of metal or dust be swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person.

In all cases be prepared to treat for shock.

5 *Fire Fighting Measures*

Suitable Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Fire Fighting Procedures:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards:

Not considered to be an explosion hazard. Reactions with incompatibles may pose an explosion hazard. Molten copper explodes on contact with water. High concentrations of finely divided copper particles in the air may present an explosion hazard.

Combustion Products:

Copper oxide

6 *Accidental Release Measures*

Under normal operating conditions no special precautions are required to clean up a spill of solid metallic copper.

7 *Handling and Storage*

Handling Activities that generate dust or fumes should be avoided.

Storage Keep material dry.

8 *Exposure Controls/Personal Protection*

Exposure Limits

(Dust)

OSHA Permissible Exposure Limit (PEL): 1 mg/m³ (TWA)^a

NIOSH Recommended Exposure Limit (REL) 1 mg/m³ (TWA)^b

Engineering Controls:

Under normal electroplating conditions metallic copper does not require precautions.



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Other materials present may require additional safety measures.

Personal Protective Equipment (PPE)

Eye Protection:	None
Skin Protection:	Gloves for abrasive conditions
Respiratory Protection:	None

9 Physical and Chemical Properties

Room Temperature Appearance: Reddish metallic solid

Odor: Odorless

pH: Not applicable

Flashpoint: Not applicable

Autoignition Temperature: Not applicable

Upper/lower Flammability Limits: Not applicable

Danger of explosion:

Boiling Point: 2567°C (4653°F)

Melting Point: 1083°C (1981°F)

Vapor Pressure:

0.1 hPa @ 1412°C
20 hPa @ 1875°C
100 hPa @ 1980°C
209 hPa @ 2175°C
300 hPa @ 2200°C
752 hPa @ 2300°C
760 hPa @ 2310°C

Evaporation rate: Not applicable

Vapor Density: Not applicable

Solubility: Insoluble

Specific Gravity: 8.96

Molecular Formula: Cu

Molecular Weight: 63.546

10. Stability and Reactivity

Stability/Incompatibility:

Oxidizers, sodium azide, acetylene, strong acids

Hazardous Reactions/Decomposition Products:

Copper oxide is formed at high temperatures in air.

11. Toxicological Information

Signs and Symptoms of Overexposure:

Acute Effects:



Eye Contact:	No adverse effects expected but dust may cause mechanical irritation.
Skin Contact:	No adverse effects expected.
Inhalation:	No adverse effects expected but dust may cause mechanical irritation.
Ingestion:	No adverse effects expected.

Carcinogenicity:

This material has not be listed as a carcinogen by NPT or OSHA

Acute Toxicity Values:

No LD₅₀ values have been found by normal routes of occupational exposure.

12. Ecological Information

Copper is expected to not bioaccumulate due to low solubility. The larger metallic particles are considered inert and persistent. Dust is susceptible to oxidation to copper oxide. Copper oxide is not readily soluble or mobile.

13. Disposal Considerations

Collect spilled material for recovery or recycling after appropriate cleaning.

14. Transport Information

U.S. Department of Transportation (DOT) Not regulated

International Maritime Organization (IMDG) Not regulated

15. Regulatory Information**U.S. Federal Regulations**

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA):

Listed only in powder form, the RQ of 5000 pounds does not apply for release of solid particles whose mean diameter is greater than 100 micrometers (0.004 inches).

Toxic Substances Control Act (TSCA):

Listed on the TSCA list

Clean Water Act (CWA):

Listed under the CWA



Clean Air Act (CAA):

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

This material is listed under SARA Section 313 as a hazardous compound

State Regulations**California:**

Copper is not on the California Proposition 65 chemical list.

**International Regulations****Australian Hazchem Code:**

None allocated.

Canadian Environmental Protection Act:

Listed on DSL

Canadian Workplace Hazardous Materials Information System (WHMIS):

Not Listed

European Inventory of Existing Chemicals (EINECS): 231-159-6

EU Classification, Risk (R) and Safety (S):

S37- Wear suitable gloves

16. Other Information

National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

Health: 2

Flammability: 0

Reactivity: 0

^a OSHA29 CFR 1910.1000, Table Z-1

^b 2005-149 NIOSH Pocket Guide

Key/Legend:

TSCA = Toxic Substance Control Act;

ACGIH = American Conference of Governmental Industrial Hygienists;

IARC = International Agency for Research on Cancer;

NIOSH = National Institute for Occupational Safety and Health;

NTP = National Toxicology Program;

OSHA = Occupational Safety and Health Administration

DSL = Domestic Substance List (Canada)



SDS Prepared by: Jingbao Lin, Technical Director.

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