

GHS Safety Data Sheet

SDS No. : CUO02PAEG

Date Issued : 2024/11/20

Section 1. Identification of the substance or mixture and of the supplier

Product Information

Product name: **Cu₂O Copper(I) oxide**

Product number:	Purity	Form	Size or Shape
CUO01PB	99%(2N)	Powder	ca.3μm
CUO01GB	99%(2N)	Grains	—

Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd.

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Recommended uses and restrictions on use: For research purposes

Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Acute toxicity(dermal) : Not classified Acute toxicity(oral, inhalation) : Category 4 Skin corrosion/irritation: Not classified Serious eye damage/eye irritation: Category 2 Specific target organ toxicity, single exposure : Category 1,3	Hazardous to the aquatic environment, short-term(acute) hazard : Category 1 long-term (chronic) hazard : Category 1	Flammable solids : Not classified Pyrophoric solids : Not classified Self-heating substances and mixtures : Not classified Substances and mixtures which, in contact with water, emit flammable gases : Not classified

GHS Label:



Pictograms or symbols:

Warning word: **DANGER**

Hazard information	Description of precaution
Harmful if swallowed Harmful if inhaled Causes serious eye irritation Causes damage to organs (systemic toxicity) May cause respiratory irritation Very toxic to aquatic life Very toxic to aquatic life with long lasting effects	Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid breathing dust/mist/gas/fume/vapor/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. Use only outdoors or in well-ventilated area. Avoid release to the environment and collect spillage. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. Protect from sunlight. Store in a cool, dry and well-ventilated place. Keep container tightly closed.



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	Store locked up.
	Dispose of contents/ container in accordance with local/national regulations.

Section 3. Composition / information on ingredients

Chemical or common name:	Copper(I) oxide
Chemical formula:	Cu ₂ O
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	1317-39-1
RTECS#:	GL8050000
TSCA inventory :	Listed
EINECS:	2152707

Section 4. First aid measures

Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
Skin contact:	Promptly flush contaminated skin with soap or mild detergent and water. Contact physician if irritation continues.
Inhalation:	Remove the exposed person immediately and provide fresh air. Get medical attention.
Ingestion:	Rinse mouth and throat with water. Get medical attention immediately.

Section 5. Fire fighting measures

Extinguishing media:	The product is not combustible. Use media appropriate for surrounding fire. In case of fire, the product may liberate toxic gases/ fume.
Fire fighting:	Self-contained breathing apparatus and full protective clothing should be used, if the material is involved in fire

Section 6. Accidental release measures

Personal Precautions:

Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor/dusts.

Environmental hazard precautions:

Shut off leak if without risk.

Prevent flow out to river, etc. so as not to badly affect.

Method for containment and cleaning up:

Indoor leakage: Ventilate as much as possible until the cleaning is completed.

Outdoor leakage: Work from the windward and evacuate the leeward crowd.

Gather up, pack in closed container as much as possible.

Carefully collect remnant and move to a safe place.

Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Use protective wears and local ventilation equipment, if inhalation or skin contact is foreseen.

Avoid prolonged or repeated exposure.

Precautions to be taken in storage:

General precautions: Store the material in a sealed container.



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Store in a cool, dry, well ventilated and dark place away from incompatible materials.

Section 8. Exposure controls / personal protection

Exposure guideline:	ACGIH(2024) : No data available OSHA(2006) : No data available
Facility measures:	Local ventilation of closed work room or total proper ventilation to prevent inhalation.
Protective ware:	Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, protective gloves, protective wear, protective boots etc.

Section 9. Physical and chemical properties

Color and Form:	Orange yellow to dark red solid.
Chemical formula:	Cu ₂ O
Formula weight:	143.1
Melting point:	1230 °C or 1235 °C
Boiling point:	1800°C (decomposes, Losing oxygen)
Specific gravity:	6.0g/cm ³
Solubility:	Soluble: hydrochloric acid, ammonia water, ammonium chloride. Insoluble: water, alcohol.
Flammability:	Non-combustible substance
Oxidation:	No data available

Section 10. Stability and reactivity

Stability:	Stable in closed container under room temperature.
Reactivity	
Condition to avoid:	No data available
Incompatibility:	Peroxyformic acid, aluminum.
Condition to avoid:	Air.

Section 11. Toxicological information

Acute toxicity(Oral):	GHS : Category 4 ; Harmful if swallowed Rat LD ₅₀ = 470 mg/kg (EHC 200(1998))
Acute toxicity(Dermal):	GHS : Not classified Rat LD ₅₀ > 2000 mg/kg (IUCLID(2000))
Acute toxicity(Inhalation):	GHS : Category 4 ; Harmful if inhaled Rat LC ₅₀ > 5 mg/L (IUCLID(2000))
Skin corrosive / irritation:	GHS : Not classified
Serious eye damage / irritation:	GHS : Category 2 ; Causes serious eye irritation
Respiratory sensitization:	GHS : No data available
Skin sensitization:	GHS : No data available
Germ cell mutagenicity:	GHS : No data available
Carcinogenicity:	GHS : No data available
Reproductive toxicity:	GHS : No data available
Specific target organ toxicity	
—single exposure:	GHS : Category 1; Causes damage to organs (systemic toxicity). GHS : Category 3; May cause respiratory irritation.
—repeated exposure:	GHS : No data available
Aspiration hazard:	GHS : No data available



Section12. Ecological information

Ecotoxicity:

Hazardous to the aquatic environment

- short-term (acute) hazard : GHS : Category 1 ; Very toxic to aquatic life
Crustaceans (Daphnia magna); EC₅₀(48h) = 0.026mg/L
(EHC 200 (1998))
- long-term (chronic) hazard : GHS : Category 1 ; Very toxic to aquatic life with long lasting
Effects

Hazardous to the ozone layer GHS : No data available
No Freon or Halon

Fish toxicity: See above

Degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Section13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed
‘Industrial Waste Haulers’ for disposal of waste.

Section 14. Transport information

UN number: 3077

IATA shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

IATA classification: Class 9 (Miscellaneous dangerous substances and articles)

IATA packing group: III

HS code: 2825.50

Marine pollution: None

Section 15. Regulatory information

TSCA inventory: Listed.

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

This SDS is for provision of information, and it does not represent a guarantee the properties or safeties of the product.

The information herein is based on the references we could obtained and the present state of our knowledge, however, this SDS does not always cover all information about the product. Some new information or amendments may be added afterwards.

Prior to use, please investigate the laws and regulations of the organization, area and country where the product is to be used. The information is intended to ordinary usage, in case of special handling, sufficient care should be taken.



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