

Copper(I) oxide**12841-500G**

Version 1.1

Revision Date 04/18/2022

Print Date 05/11/2023

SECTION 1. IDENTIFICATION

Product name : Copper(I) oxide

Number : 000000021284

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : powder

Color : red

Odor : odourless

Classification of the substance or mixture

Classification of the substance or mixture : Acute toxicity, Category 4, Oral
Serious eye damage, Category 1
Acute toxicity, Category 4, Inhalation

GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Danger

Hazard statements

: Harmful if swallowed or if inhaled.
Causes serious eye damage.

Precautionary statements

: **Prevention:**

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/ doctor.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula

: Cu₂O

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Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Copper (I) oxide	1317-39-1	100.00 %

SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- Inhalation : If breathed in, move person into fresh air. Call a physician immediately.
- Skin contact : Wash off with soap and plenty of water. Consult a physician.
- Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Remove contact lenses. Call a physician immediately.
- Ingestion : Clean mouth with water and drink afterwards plenty of water. Call a physician immediately.

Notes to physician

- Most important symptoms/effects, acute and delayed : No information available.
- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder
- Specific hazards during : Fire may cause evolution of:

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firefighting

Copper oxides

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
No unprotected exposed skin areas.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons must be kept away.
Ensure adequate ventilation.
Avoid dust formation.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Use mechanical handling equipment.
Sweep up and shovel into suitable containers for disposal.
Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

Conditions for safe storage, : Store in original container.

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including any
incompatibilitiesKeep container tightly closed in a dry and well-ventilated place.
Protect from moisture.**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Avoid breathing dust.
Avoid contact with skin, eyes and clothing.
- Engineering measures : Provide adequate ventilation.
- Eye protection : Safety goggles
- Hand protection : Latex gloves
Gloves must be inspected prior to use.
Replace when worn.
- Skin and body protection : Protective suit
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hygiene measures : General industrial hygiene practice.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Copper (I) oxide	1317-39-1	TWA : Time weighted average	0.2 mg/m ³	03 2014	ACGIH:US. ACGIH Threshold Limit Values, as amended
Further information	:	Form of exposure : Fume. Expressed as : as Cu			

Copper (I) oxide	1317-39-1	TWA : Time weighted average	1 mg/m ³	03 2014	ACGIH:US. ACGIH Threshold Limit Values, as amended
Further	:	Form of exposure : dust/mist			

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information	Expressed as : as Cu				
Copper (I) oxide	1317-39-1	REL : Recomm ended exposure limit (REL):	1 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information	:	Form of exposure : dust/mist Expressed as : as Cu			
Copper (I) oxide	1317-39-1	REL : Recomm ended exposure limit (REL):	0.1 mg/m3	2016	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information	:	Form of exposure : Fume. Expressed as : as Cu			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: powder
Color	: red
Odor	: odourless
Odor threshold	: Note: No data available
pH	: 8 at 100.00 g/l, 20 °C Note: suspension
Melting point/range	: 1,230 °C
Boiling point/boiling range	: Note: No data available
Flash point	: Note: Not applicable

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Evaporation rate : Note: No data available

Lower explosion limit : Note: Not applicable

Upper explosion limit : Note: Not applicable

Vapor pressure : Note: No data available

Vapor density : Note: No data available

Density : ca. 6 g/cm³ at 25 °C

Water solubility : Note: practically insoluble

Partition coefficient:
n-octanol/water : Note: No data available

Ignition temperature : Note: Not applicable

Decomposition temperature : Note: No decomposition if used as directed.

Viscosity, dynamic : Note: No data available

Viscosity, kinematic : Note: No data available

Molecular weight : 143.09 g/mol

Bulk density : ca. 1,400 kg/m³

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SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Decomposes when moist.

Conditions to avoid : Protect from moisture.

Incompatible materials : Aluminium
Performic Acid

Hazardous decomposition products : Fire may cause evolution of:
Copper oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Note: Classification based on Annex VI of regulation 1272/2008/EC.

Acute inhalation toxicity : Note: Classification based on Annex VI of regulation 1272/2008/EC.

Acute dermal toxicity : Note: No data available

Skin irritation : Note: No data available

Eye irritation : Note: Classification based on Annex VI of regulation 1272/2008/EC.

Sensitisation : Note: No data available

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : Note: No data available

Toxicity to daphnia and other aquatic invertebrates : Note: No data available

Toxicity to algae : Note: No data available

Toxicity to bacteria : Note: No data available

Elimination information (persistence and degradability)

Biodegradability : Note: The methods for determining the biological degradability are not applicable to inorganic substances.

Further information on ecology

Additional ecological information : Classification based on Annex VI of regulation 1272/2008/EC.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT	UN/ID No.	: UN 3077
	Proper shipping name	: Environmentally hazardous substances, solid, n.o.s. (Copper (I) oxide)

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Class	9
Packing group	III
Hazard Labels	9

IATA	UN/ID No.	: UN 3077	
	Description of the goods	: Environmentally hazardous substances, solid, n.o.s. (Copper (I) oxide)	
	Class	: 9	
	Packaging group	: III	
	Hazard Labels	: 9	
	Packing instruction (cargo aircraft)	: 956	
	Packing instruction (passenger aircraft)	: 956	
	Packing instruction (passenger aircraft)	: Y956	

IMDG	UN/ID No.	: UN 3077
	Description of the goods	: Environmentally hazardous substances, solid, n.o.s. (COPPER(I) OXIDE)
	Class	: 9
	Packaging group	: III
	Hazard Labels	: 9
	EmS Number	: F-A, S-F
	Marine pollutant	: yes

Not regulated for transport when single and combination packagings are <5L for liquids or <5kg for solids per ADR 2.2.9.2.10, IMDG 2.10.3 and IATA SP A197).

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemicals Act (AIC), as : On the inventory, or in compliance with the inventory

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amended

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS) : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

National regulatory information

SARA 302 Components : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components : The following components are subject to reporting levels established by SARA Title III, Section 313:
: Copper (I) oxide 1317-39-1

SARA 311/312 Hazards : Acute Health Hazard

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California Prop. 65

: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 2	2
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group