

Cupric Oxide, Powder, Reagent, ACS

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Cupric Oxide, Powder, Reagent, ACS

Synonyms/Generic Names: Copper (II) Oxide

Product Number: 1695

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Call: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Hazards Not Otherwise Classified (HNOC): None

Signal Words: Warning

Pictograms:



GHS Classification:

Acute toxicity, Inhalation	Category 4
Acute toxicity, Dermal	Category 5
Serious eye damage/ irritation	Category 2B
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H313	May be harmful in contact with skin
H320	Causes eye irritation
H332	Harmful if inhaled
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective equipment as required.
P363	Wash contaminated clothing before reuse.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continuing rinsing.
P337+P313	If eye irritation persists get medical advice/attention.
P271	Use only outdoors or in a well-ventillated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison control center or doctor.
P273	Avoid release to the environment.
P501	Dispose of contents/container to an approved waste disposal plant.

Potential Health Effects

Eyes	May cause eye irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Ingestion	Harmful if swallowed.

NFPA Ratings

Health	1
Flammability	0
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	1
Fire	0
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Cupric Oxide	99	1317-38-0	215-269-1	CuO	79.55 g/mol
Cuprous Oxide	1	1317-39-1	215-270-7	Cu ₂ O	143.09 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes. Get medical attention if you feel unwell.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if you feel unwell.
Skin	Flush with plenty of water and wash using soap. Get medical attention if you feel unwell.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, drink 200 - 300mL of water. Get medical attention if you feel unwell.
General Advice	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Cuprous oxide is stable in dry air but can oxidize to cupric oxide in the presence of moist air temperatures above 100°C. Emits toxic fumes (copper oxides) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Pick up and arrange spill without creating dust. Sweep up and place in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Only use in a well-ventilated area & prevent the creation of dusts. See section 8 for recommendations on the use of personal protective equipment. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well-ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Copper, dusts and mists, as Cu	1 mg/m ³	TWA	NIOSH RELs
	1 mg/m ³	TWA	ACGIH® TLVs®
	1 mg/m ³	TWA	OSHA PELs

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Handle in accordance with good industrial hygiene and safety practices.

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Black powder
Odor	Odorless
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	1,326°C (2,418°F)
Initial boiling point and boiling range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Density	6.32 g/cm ³ (water=1)
Solubility (ies)	Not Available
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Keep at a temperature not exceeding (°C): 100 (in moist conditions). Avoid dust generation.
Incompatible Materials	May react violently with acids, bases.
Hazardous Decomposition Products	Copper fumes will be released if heated above its melting point (1326°C)

11. TOXICOLOGICAL INFORMATION**Acute Toxicity**

Skin	LD50 – rabbit – ≤ 5,000 mg/kg
Eyes	Not Available
Respiratory	LC50 – Rat - ≤ 5mg/l dust
Ingestion	LD50 – Rat – not classified

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Redness, itching.
Eyes	Redness, tearing, itching, may cause burning.
Respiratory	Upper respiratory tract and influenza-like illness termed metal fume fever. Metal fume fever include chills, muscle aches, nausea, fever, dry throat cough, weakness and lassitude.
Ingestion	Nausea, vomiting, burning, diarrhea, shock.

Chronic Toxicity	Repeated/prolonged skin contact may cause thickening, blackening, or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Classified

12. ECOLOGICAL INFORMATION**Ecotoxicity:**

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	Not Available
Terrestrial	Not Available
Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	Not Dangerous Goods
TDG	Not Dangerous Goods
IMDG	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER (II) OXIDE), 9, PG III
Marine Pollutant	Yes
IATA/ICAO	UN3077, Environmentally hazardous substance, solid, n.o.s. (Copper (II) Oxide), 9, pg III

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Not Listed
New Jersey: Right to Know Hazardous Substance List	Not Listed
Pennsylvania: Hazardous Substance List	Not Listed
Rhode Island: Hazardous Substance List	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Acute Health Hazard
SARA 312	Acute Health Hazard
SARA 313	Listed: Copper Compound
WHMIS Canada	Class D-1B: Poisonous and infectious material- Immediate and serious effects- Toxic Class D-2B: Poisonous and infectious material- Other effects- Toxic

16. OTHER INFORMATION

Revision	Date
Revision 1	01/29/2013
Revision 2	08/15/2013
Revision 3	06/27/2022
Revision 4	07/12/2022

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information, and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing, or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.