



SAFETY DATA SHEET

ProChemOnline.com



SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Copper (II) Oxide**

PRODUCT NUMBER: 1579

CAS NUMBER: 1317-38-0

SYNONYMS: Cupric oxide

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Warning

Hazard Statements

H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Phrases

P273	Avoid release into the environment.
P501	Dispose of contents/container to an approved waste disposal plant.

HMIS CLASSIFICATION:

Health: 0 Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 0 Flammability: 0 Reactivity Hazard: 0

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: May cause skin irritation.

INHALATION: May cause respiratory tract irritation.

INGESTION: May cause irritation if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: CuO

Molecular Weight: 79.55

CHEMICAL NAME	CAS#	%
Copper Oxide	1317-38-0	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately rinse the eyes for at least 15 minutes. Seek medical attention.

SKIN EXPOSURE: Wash with soap and plenty of water. Seek medical attention.

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: None

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid breathing dusts and vapors.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Sweep up and place in suitable container for proper disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store away from oxidizing agents, aluminum, metal powders, magnesium, and alkali metals.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Copper oxide	1 mg/m ³	REL	NIOSH

REL: Recommended Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Black solid
ODOR: None
MOLECULAR WEIGHT: 79.55
BOILING POINT: 2000° C
MELTING POINT: 1326° C
SPECIFIC GRAVITY: 6.315 gm/ml
VAPOR DENSITY: No data available
SOLUBILITY: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: None known.
INCOMPATIBILITY: Oxidizing agents, metal powders, alkali metals, aluminum/aluminum alloys. Magnesium, hydrogen sulfate gas, and reducing agents.
DECOMPOSITION PRODUCTS: None

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat – >2500mg/kg. LD50 Dermal – rat – >2000mg/kg.
CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.
MUTAGENIC EFFECTS: Not available
TETRATOGENIC EFFECTS: Not available
CHRONIC TOXICITY: Not available
RTECS: GL7900000

Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage, and demyelination, kidney defect, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis. Gastrointestinal disturbance, lowered blood pressure, depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

AQUATIC VERTEBRATE: LC50 – *Oncorhynchus mykiss* (rainbow trout) – 0.19-0.21mg/L – 96h
AQUATIC INVERTEBRATE: EC50 – *Daphnia magna* (water flea) - 0.011-0.039mg/L – 48h. NOEC – *Lamelibranchia* – mussel – 0.007mg/L – 288h
TERRESTRIAL: NOEC – *Phaeodactylum tricornutum* – 0.0057mg/L – 72h.
Do not allow undiluted product or large quantities of it to reach groundwater, watercourse, or swage system. Also poisonous for fish and plankton in water bodies. May cause long lasting harmful effects to aquatic life. Avoid transfer into the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN3077

Environmentally hazardous substance, solid, n.o.s.

(Copper oxide)

CLASS 9

PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not Listed

SARA 311/312: No SARA Hazard

SARA (TITLE 313): Copper Oxide

CALIFORNIA PROP. 65: Not Listed

WHMIS CANADA: Not Listed

MASSACHUSETTS RIGHT TO KNOW COMPONENTS: No components are subject to the Massachusetts Right to Know Act.

NEW JERSEY RIGHT TO KNOW COMPONENTS: Copper Oxide

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Copper Oxide

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 01/15

SDS DEPT.