



# SAFETY DATA SHEET

ProChemOnline.com



## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Copper (I) Oxide**  
PRODUCT NUMBER: 1571  
CAS NUMBER: 1317-39-1  
SYNONYMS: Cuprous Oxide, Diccopper oxide

### MANUFACTURER:

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## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Warning**

### Hazard Statements

|      |   |
|------|---|
| H302 | Harmful if swallowed.                                 |
| H410 | Very toxic to aquatic life with long lasting effects. |

### Precautionary Phrases

|           |  |
|-----------|--|
| P264      | Wash skin thoroughly after handling.                                       |
| P270      | Do not eat, drink, or smoke when using this product.                       |
| P273      | Avoid release into the environment   |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |

### HMIS CLASSIFICATION:

Health: 2      Fire: 0      Reactivity Hazard: 1

### NFPA RATING:

Health: 2      Flammability: 0      Reactivity Hazard: 1

**EYE CONTACT:** May cause irritation of the eyes.

**SKIN CONTACT:** Causes skin irritation

**INHALATION:** Causes respiratory tract irritation.

**INGESTION:** May cause irritation.

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Cu<sub>2</sub>O

Molecular Weight: 143.09

| CHEMICAL NAME | CAS#      | %   |
|---------------|-----------|-----|
| Cuprous Oxide | 1317-39-1 | 100 |

### SECTION 4 FIRST AID MEASURES

**EYE EXPOSURE:** In case of eye contact, flush the eye with plenty of water for at least 15 minutes and seek medical attention.

**SKIN EXPOSURE:** Immediately wash with plenty of water and wash soap for at least 15 minutes while removing contaminated clothing. Get 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:** This product does not present an explosion hazard.

**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 the formation of dust. Avoid breathing vapors, mist, gas, or dust.

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

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for 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.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry well ventilated area. Air and moisture sensitive.

### SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### EXPOSURE CONTROLS:

| Component      | Exposure Limits    | Basis | Entity |
|----------------|--------------------|-------|--------|
| Dicopper Oxide | 1mg/m <sup>3</sup> | 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:** Purple to dark red solid

**ODOR:** None

**MOLECULAR WEIGHT:** 143.09

**BOILING POINT:** 1800° C (dec.)

**MELTING POINT:** 1230° C

**SPECIFIC GRAVITY:** 6 gm/ml

**VAPOR DENSITY:** No data available

**SOLUBILITY:** Insoluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Avoid air and moisture

**INCOMPATIBILITY:** Oxidizing agents, air, water, and moisture.

**DECOMPOSITION PRODUCTS:** None

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LD50 Oral – rat – 470mg/kg. LC50 Inhalation – rat – >50,000mg/m<sup>3</sup> – 4h. LD50 Dermal – rat - > 2,000mg/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

**RTECS:** GL8050000

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 arteriosclerosis. Blood disorders, liver injury, and damage to the lungs may occur.

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

## SECTION 12 ECOLOGICAL DATA

**TOXICITY TO FISH:** LC50 – *Cyprinodon variegatus* (sheepshead minnow) - >0.17mg/l – 96h.

**TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES :** EC50 – *Daphnia magna* (water flea) – 0.5mg/l – 48h.

Very toxic to aquatic life.

## 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.

(Cuprous 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:** Acute Health Hazard

**SARA (TITLE 313):** Cuprous oxide

**CALIFORNIA PROP. 65:** Not Listed

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

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** Cuprous Oxide

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS:** Cuprous Oxide

## **SECTION 16 OTHER INFORMATION**

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