



## Material Safety Data Sheet

### Copper(II) oxide

MSDS# 05655

#### Section 1 - Chemical Product and Company Identification

MSDS  
Name: Copper(II) oxide

Catalog  
Numbers: AC192910000, AC192910050, AC192910250, AC197440000, AC197440250, AC197445000  
AC197445000, AC221280000, AC221281000, AC405860000, AC405860050, AC405860250  
AC405860250, AC405862500, AC405865000, C470-500, C472-500, C474-500

Synonyms: Cupric oxide; Copper monoxide.

Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

#### Section 2 - Composition, Information on Ingredients

CAS#: 1317-38-0

Chemical Name: Copper(II) oxide

%: 97.5+

EINECS#: 215-269-1

Hazard Symbols:



Risk Phrases:

XN N



22 50

#### Section 3 - Hazards Identification

##### EMERGENCY OVERVIEW

Warning! May cause respiratory tract irritation. Harmful if swallowed. Causes eye and skin irritation. Very toxic to aquatic organisms. Target Organs: Eyes, skin.

##### Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be harmful if absorbed through the skin.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. May cause nausea and vomiting.

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.

Chronic: No information found.

#### Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.

Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled

Inhalation: the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to  
Physician:

#### Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition  
Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Not available  
Lower:

Explosion Limits: Not available  
Upper:

NFPA Rating: health: 2; flammability: 1; instability: 0;

#### Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

#### Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

Storage: Store in a cool, dry place. Store in a tightly closed container.

#### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Copper(II) oxide	none listed	0.1 mg/m <sup>3</sup> TWA (fume, as Cu)100 mg/m <sup>3</sup> IDLH (dust and mist, as Cu) (listed under Copper compounds, n.o.s.).	none listed

OSHA Vacated PELs: Copper(II) oxide: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

#### Section 9 - Physical and Chemical Properties

Physical State: Powder

Color: black

Odor: odorless

pH: 7 (50g/L aq. sol.)

Vapor Pressure: Not applicable.

Vapor Density: Not available

Evaporation Rate: Not applicable.

Viscosity: Not applicable.

Boiling Point: Not available

Freezing/Melting Point: 1326 deg C ( 2,418.80°F)

Decomposition Temperature: Not available

Solubility in water: Insoluble

Specific Gravity/Density: Not available.

Molecular Formula: CuO

Molecular Weight: 79.54

#### Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials	Strong oxidizing agents, reducing agents, alkali metals, finely powdered metals, acetylene, azides, hydrazine derivatives.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, oxides of copper, copper fumes.
Hazardous Polymerization	Will not occur.

#### Section 11 - Toxicological Information

RTECS#: CAS# 1317-38-0: GL7900000

RTECS:

LD50/LC50: CAS# 1317-38-0: Oral, rat: LD50 = 470 mg/kg;

Carcinogenicity: Copper(II) oxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Other: Do not empty into drains.

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

US DOT

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOL

Hazard Class: 9

UN Number: UN3077

Packing Group: III

Canada TDG

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOL

Hazard Class: 9

UN Number: UN3077

Packing Group: III

#### Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN N

Risk Phrases:

R 22 Harmful if swallowed.

R 50 Very toxic to aquatic organisms.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

S 29 Do not empty into drains.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 1317-38-0: 0

Canada

CAS# 1317-38-0 is listed on Canada's DSL List

Canadian WHMIS Classifications: D1B, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 1317-38-0 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 1317-38-0 is listed on the TSCA  
Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/12/1997

Revision #8 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

-----