



# Bayville Chemical Supply Company Inc.

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## SAFETY DATA SHEET

### 1. Identification

**Product Name:** Copper (II) oxide  
**CAS-No:** 1317-38-0  
**Synonyms:** Cupric oxide  
**Recommended Use:** Laboratory chemicals.  
**Uses advised against:** Not for food, drug, pesticide or biocidal product use

#### Details of the supplier of the safety data sheet

**Company:** Bayville Chemical Supply Company Inc  
70-G East Jefryn Boulevard  
Deer Park, NY 11729 USA  
**Telephone:** 631-586-4309  
**Fax:** 631-254-5591  
**Emergency telephone number**  
CHEMTEL: (800) 255-3924 or 813-248-0585

### 2. Hazard(s) identification

#### Classification

#### Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16

#### GHS Label elements, including precautionary statements

##### Pictogram



**Signal word:** Warning

#### Hazard statement(s)

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statement(s)

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC):** Very toxic to aquatic life with long lasting effects

### 3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Copper oxide	1317-38-0	> 95

## 4. First-aid measures

**General Advice:** If symptoms persist, call a physician.

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact:** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion:** Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Most important symptoms and effects:** None reasonably foreseeable.

**Notes to Physician:** Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media:** No information available

**Flash Point:** No information available

**Method:** No information available

**Autoignition Temperature**

**Explosion Limits**

**Upper:** No data available

**Lower:** No data available

**Sensitivity to Mechanical Impact:** No information available

**Sensitivity to Static Discharge:** No information available

**Specific Hazards Arising from the Chemical:** Do not allow run-off from fire-fighting to enter drains or water courses.

**Hazardous Combustion Products:** None known

**Protective Equipment and Precautions for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### NFPA

Health Hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0

### HMIS

Health Hazard: 0

Chronic Health Hazard: 0

Flammability: 0

Physical Hazard: 0

## 6. Accidental release measures

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

**Environmental Precautions:** Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

**Methods for Containment and Clean Up:** Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

**Handling:** Wear personal protective equipment. Avoid ingestion and inhalation. Avoid dust formation. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

**Storage:** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure controls / personal protection

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Copper oxide	TWA: 1 mg/m <sup>3</sup>	-	IDLH: 100 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> TWA: 1mg/m <sup>3</sup>	-

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

**Engineering Measures:** Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

**Eye/face Protection:** Tightly fitting safety goggles.

**Skin and body protection:** Long sleeved clothing.

**Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

Physical State	Solid
Appearance	Black
Odor	Odorless
Odor Threshold	No information available
pH	7 (50g/l aq. Sol)
Melting Point/Range	1326 °C / 2418.8 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid, gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Relative Density	6.320 g/cm <sup>3</sup>
Solubility	0.0001 g/l - Insoluble in water
Partition coefficient; n-octanol/water	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	> 1026°C
Viscosity	Not applicable

Molecular Formula  
Molecular Weight

Cu O  
79.54

## 10. Stability and reactivity

**Reactive Hazard:** None known, based on information available

**Stability:** Stable under recommended storage conditions.

**Conditions to Avoid:** Incompatible products. Excess heat. Avoid dust formation.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous Decomposition Products:** None under normal use conditions

**Hazardous Polymerization:** Hazardous polymerization does not occur.

**Hazardous Reactions:** None under normal processing.

## 11. Toxicological information

### Information on toxicological effects

**Acute toxicity** LD50Oral-Rat-> 2,500 mg/kg  
(OECD Test Guideline 423)

**Inhalation:** No data available

LD50Dermal-Rat-> 2,000 mg/kg  
(OECD Test Guideline 402)

### Skin corrosion/irritation

Skin-Rabbit  
Result: No skin irritation  
(OECD Test Guideline 404)

### Serious eye damage/eye irritation

Eyes-Rabbit  
Result: Mild eye irritation  
(OECD Test Guideline 405)

### Respiratory or skin sensitization

Maximization Test-Guinea pig  
Does not cause skin sensitization.  
(OECD Test Guideline 406)

**Germ cell mutagenicity:** No data available

### Carcinogenicity

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**NTP:** 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.

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.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** No data available

**Specific target organ toxicity -single exposure:** No data available

**Specific target organ toxicity -repeated exposure:** No data available

**Aspiration hazard:** No data available

#### Additional Information

**RTECS:** GL7900000

**Symptoms of systemic copper poisoning may include:** capillary damage, headache, cold sweat, weak pulse, and 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 defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has led to hemolytic anemia and accelerates arteriosclerosis.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

## 12. Ecological information

### Ecotoxicity

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Copper(II) oxide	Not listed	Onchorhynchus mykiss: LC50: 25 mg/L/48h	Not listed	Daphnia: EC50: 0.04mg/L/48h

**Persistence and Degradability:** Insoluble in water

**Bioaccumulation/ Accumulation:** No information available.

**Mobility:** Is not likely mobile in the environment due its low water solubility.

## 13. Disposal considerations

**Waste Disposal Methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

### DOT

UN-No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s
Proper technical name	Copper oxide
Hazard Class	9
Packing Group	III

### TDG

UN-No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s.
Hazard Class	9
Packing Group	III

### IATA

UN-No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s
Hazard Class	9
Packing Group	III

**IMDG/IMO**

UN-No	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s
Hazard Class	9
Packing Group	III

**15. 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:

	CAS-No.	Revision Date
Copper oxide	1317-38-0	2007-07-01

**SARA 311/312 Hazards:** No SARA Hazards

**Massachusetts Right To Know Components:** No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components:**

	CAS-No.	Revision Date
Copper oxide	1317-38-0	2007-07-01

**New Jersey Right To Know Components:**

	CAS-No.	Revision Date
Copper oxide	1317-38-0	2007-07-01

**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

**16. Other information**

Information contained in this safety data sheet is offered without charge for use by technically qualified personnel at their discretion and risk. All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed no warranty of any kind is made with respect thereto. This information is not intended as a license to operate under or a recommendation to practice or infringe any patent of this Company or others covering any process, composition of matter or use. Since the Company shall have no control of the use of the product described herein, the company assumes no liability for loss or damage incurred from the proper or improper use of such product.

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