

MATERIAL SAFETY DATA SHEET**Product Name:** Copper(II) oxide (Cupric oxide)**CAS No.:** 1317-38-0**Version:** 0**1. Identification**

Product Code : 90381
Company Name : Advent Chembio Private Limited
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2. Hazards Identification**Hazard classification**

Acute aquatic toxicity : Category 1

Chronic aquatic toxicity : Category 3

Label elements**Hazard symbol****Signal word** : Warning**Hazard statement** : Very toxic to aquatic life.
Harmful to aquatic life with long lasting effects**Precautionary statement** : Avoid release to the environment.**Supplemental Hazard Statements** : None**3. Composition/information on ingredients**

Ingredient	CAS No	Percent
Copper(II) oxide (Cupric oxide)	1317-38-0	NLT- 98.0%

4. First Aid Measures**Description of first aid measures****General advice** : Consult a physician. Show this safety data sheet to the doctor in attendance.**Inhalation** : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

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- Skin contact** : Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
- Eye contact** : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Swallowed** : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- Most important symptoms and effects, both acute and delayed** : The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11
- Indication of any immediate medical attention and special treatment needed** : No data available
- Treatment** : No data available

5. Fire fighting measures**Extinguishing media**

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture : Copper oxides

Advice for firefighters : Wear self contained breathing apparatus for fire fighting if necessary

Further information : Use water spray to cool unopened containers.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections : For disposal see section 13.

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- Precautions for safe handling** : Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.
- Conditions for safe storage, including any incompatibilities** : Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
- Specific end use(s)** : No data available

8. Exposure Controls Personal Protection**Control parameters****Components with workplace control parameters****Exposure controls**

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment**Eye/face protection**

: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection Hand protection

: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands.

Body Protection

: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

: Respiratory protection is required.

9. Physical and Chemical Properties

- Appearance** : Brownish black powder.
- Odor** : No data available
- pH** : No data available
- Melting point/freezing point** : 1.336 °C
- Initial boiling point and boiling range** : No data available
- Flash Point** : No data available
- Vapor pressure** : 13 hPa at 656 °C

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Vapor density : No data available
Relative density : 6.320 g/cm³
Solubility in water : 0.0001 g/l - insoluble
Solubility (other) : No data available
Formula : CuO
Molecular Weight : 79.55 g/mol

10. Stability and Reactivity

Reactivity : No data available
Chemical stability : Stable under recommended storage conditions.
Possibility of hazardous reactions : No data available
Conditions to avoid : No data available
Incompatible materials : Reducing agents, Hydrogen sulfide gas, Aluminum, Alkali metals, Powdered metals
Hazardous decomposition products : No data available

11. Toxicological Information**Information on toxicological effects**

Acute toxicity : LD50 Oral - rat - > 2.500 mg/kg
(OECD Test Guideline 423)
LD50 Dermal - rat - > 2.000 mg/kg
(OECD Test Guideline 402)

Skin corrosion/irritation : No data available
Serious eye damage/eye irritation : Mild eye irritation
Respiratory or skin sensitization : No data available
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.

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
Potential health effects

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Inhalation	:	No data available
Ingestion	:	No data available
Skin	:	No data available
Eyes	:	No data available
Signs and Symptoms of Exposure	:	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 lead 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

Toxicity	:	Toxicity to fish: LC50 - Oncorhynchus mykiss (rainbow trout) - 0,19 - 0,21 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 0,011 - 0,039 mg/l - 48 h NOEC - Lamellibranchia (mussel) - 0,007 mg/l - 288 h Toxicity to algae NOEC - Phaeodactylum tricornutum - 0,0057 mg/l - 72 h
Persistence and degradability	:	No data available
Bioaccumulative potential	:	No data available
Mobility in soil	:	No data available
Other adverse effects	:	Very toxic to aquatic life.

13. Disposal consideration

Disposal instructions	:	Discharge, treatment, or disposal may be subject to national, state, or local laws.
Contaminated packaging	:	Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

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	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	3077	Copper oxide	9	III	Yes
IMDG	3077	Copper oxide	9	III	Yes
IATA	3077	Copper oxide	9	III	Yes

15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. Other Information**Issue Date :**01/08/2014**Version : 0**

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