

SDS X50023 Copper (II) Hydroxide

Date of Issue/re-issue: 10/01/2019

Expiry: 01/02/2024

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**
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Product	Copper (II) Hydroxide				Code	X50023
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
20427-59-2	HSR003231	NA	NA	NA	No	No

Recommended use: Laboratory Investigations

2. Hazards identification

2.1 GHS Classification

Acute toxicity, Oral (Category D)

Acute toxicity, Dermal (Category E)

2.2 GHS Label elements, including precautionary statements



Pictogram Signal word **Warning**

Hazard statement(s)

H302 Harmful if swallowed.

H313 May be harmful in contact with skin.

Precautionary statement(s)

Prevention

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

P330 Rinse mouth.

Disposal

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

2.3 Other hazards

None

3. Composition/information on ingredients

3.1 Substances

Synonyms: Cupric hydroxide

Formula: H₂CuO₂

Molecular Weight: 97.56 g/mol

Component	Concentration
Copper dihydroxide	
CAS No.	20427-59-2
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4. First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

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 haemolytic anaemia and accelerates arteriosclerosis.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Copper oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions

Do not let product enter drains.

6.3 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.

7. Handling and storage

7.1 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.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.

7.3 Specific end uses

No data available.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

We are not aware of any national exposure limit.

8.2 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

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin 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

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

Form: powder

b) Odour

no data available.

c) Odour Threshold

no data available.

d) pH

no data available.

e) Melting point/freezing point

80 °C

f) Initial boiling point and boiling range

no data available.

g) Flash point no data available.

h) Evaporation rate no data available.

i) Flammability (solid, gas)

no data available.

j) Upper/lower flammability or explosive limits

no data available.

k) Vapour pressure

no data available.

l) Vapour density

no data available.

m) Relative density

no data available.

n) Water solubility

Slightly soluble

o) Partition coefficient: n-octanol/water

no data available.

p) Autoignition temperature

no data available.

q) Decomposition temperature

no data available.

r) Viscosity

no data available.

10. Stability and reactivity

10.1 Reactivity

no data available.

10.2 Chemical stability

no data available.

10.3 Possibility of hazardous reactions

no data available.

10.4 Conditions to avoid

no data available.

10.5 Incompatible materials

Strong acids

10.6 Hazardous decomposition products

Other decomposition products

No data available.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Human - 200 mg/kg

LD50 Oral - Duck - > 5,000 mg/kg

LD50 Oral - Quail - 3,400 mg/kg

LC50 Inhalation - Mammal - > 2,000 mg/l

LD50 Dermal - rabbit - > 3,160 mg/kg

Skin corrosion/irritation

no data available.

Serious eye damage/eye irritation

no data available.

Respiratory or skin sensitization

no data available.

Germ cell mutagenicity

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

Inhalation

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

Ingestion

Harmful if swallowed.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

Causes eye burns.

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 led to haemolytic anaemia and accelerates arteriosclerosis.

Additional Information

RTECS: GL7600000

12. Ecological information

12.1 Toxicity

no data available.

12.2 Persistence and degradability

no data available.

12.3 Bioaccumulative potential

no data available.

12.4 Mobility in soil

no data available.

12.5 Results of PBT and vPvB assessment

no data available.

12.6 Other adverse effects

no data available.

13. Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. Transport Information Table

	ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
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14.1	UN Number	-	-	-
14.2	UN Proper Shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class	-	-	-
14.4	Packaging group	-	-	-
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	No data available.		

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

HSNO Approval Code: HSR003231

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006

Tracking Required: not required, not required

Approved Handler Cert.: not required, not required

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product 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.

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