SDS 2010 Copper (II) Chloride Dihydrate

Date of Issue/re-issue: 09/08/2024 Expiry: 09/08/2029

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**

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Product	Copper (II) Chloride Dihydrate				**Code**	2010
CAS#	**HSNO#**	**UN #**	**DG Class/es**	**Packing group #**	**Tracking?**	**Handlers Certificate?**
10125-13-0	HSR003637	2802	8	III	No	No

Recommended use: Laboratory Investigations

2. Hazards identification

2.1 GHS Classification

Acute toxicity, Oral (Category D)

Skin irritation (Category A)

Eye irritation (Category A)

Aquatic toxicity (Acute or Chronic) (Category A)

2.2 GHS Label elements, including precautionary statements

Pictogram  Signal word **Warning**

Hazard statement(s)

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

Precautionary statement(s)

Prevention

P264 Wash skin thoroughly after handling.

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

P273 Avoid release to the environment.

P280 Wear protective gloves.

Response

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

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P330 Rinse mouth.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

Disposal

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

2.3 Other hazards

None

3. Composition/information on ingredients

Substance/Mixture: Substance

3.1 Substances

Hazardous components

Component	Classification	Concentration
Copper (II) chloride dihydrate		
	6.1 D; 6.3 A; 6.4 A; 9.1 A; H302, H315, H319, H400 M-Factor - Aquatic Acute: 10	<=100%

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

Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue., 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., symptoms observed shortly before death were: shock, renal failure.

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

No data available

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

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 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.
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. Hygroscopic.
7.3 Specific end use(s)
No data available

8. Exposure controls/personal protection
Occupational Exposure Limits
Contains no substances with occupational exposure limit values.
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.
Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
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: solid
Colour: dark blue
b) Odour
No data available
c) Odour Threshold
No data available
d) pH
3.0 - 3.8
e) Melting point/freezing point
Melting point/range: 100 °C - dec.
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
2.51 g/cm^3
n) Water solubility
No data available
o) Partition coefficient: n-octanol/water
No data available
p) Auto-ignition 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
Heat Exposure to moisture
10.5 Incompatible materials
Alkali metals
10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions
Hydrogen chloride gas, copper oxides.

Other decomposition products
No data available

11. Toxicological information

11.1 Information on toxicological effects
Acute toxicity
LD50 Oral - Rat - 336 mg/kg
Inhalation: No data available
LD50 Dermal - Rat - male - > 2,000 mg/kg
LD50 Dermal - Rat - female - 1,224 mg/kg
Skin corrosion/irritation
Skin - Rabbit - Irritating to skin.
Serious eye damage/eye irritation
Eyes - Rabbit - Risk of serious damage to eyes.
Respiratory or skin sensitisation
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
Inhalation
May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion
Harmful if swallowed.
Skin
Harmful if absorbed through skin. Causes skin irritation.
Eyes
Causes eye burns.
Signs and Symptoms of Exposure
Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue., 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., symptoms observed shortly before death were: shock, renal failure.
Additional Information
RTECS: GL7030000

12. Ecological information

12.1 Toxicity

Toxicity to fish
LC50 - Cyprinus carpio (Carp) - 0.12 - 0.23 mg/l - 96.0 h
LC50 - Lepomis macrochirus - 0.9 mg/l - 96.0 h
NOEC - Ictalurus punctatus - 0.013 mg/l - 60 d
12.2 Persistence and degradability
The methods for determining the biological degradability are not applicable to inorganic substances.
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
Very toxic to aquatic life. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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**
14.1	**UN Number**	2802	2802	2802
14.2	**UN Proper Shipping name**	COPPER CHLORIDE	COPPER CHLORIDE	Copper Chloride
14.3	**Transport Hazard Class**	8	8	8
14.4	**Packaging group**	III	III	III
14.5	**Environmental Hazards**	Yes	Yes	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: HSR003637
HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006
Tracking Required: not required
Approved Handler Cert.: 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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