

**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier****Product name:** COPPER(II) CHLORIDE DIHYDRATE**CAS number:** 10125-13-0**Product code:** A67210**Synonyms:** CUPRIC CHLORIDE DIHYDRATE**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.3. Details of the supplier of the safety data sheet****Company name:** Philip Harris Ltd

2 Gregory Street

Hyde

Cheshire

SK14 4HR

United Kingdom

**Tel:** +44 (0)845 1200 506**Fax:** +44 (0)161 367 2140**Email:** [enquiries@philipharris.co.uk](mailto:enquiries@philipharris.co.uk)**1.4. Emergency telephone number****Emergency tel:** +44 (0) 845 1200 506**Section 2: Hazards identification****2.1. Classification of the substance or mixture****Classification under CLP:** Met. Corr. 1: H290; Acute Tox. 4: H302+312; Skin Irrit. 2: H315; Eye Dam. 1: H318;  
Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Acute Tox. 4: H332**Classification under CHIP:** Xn: R21/22; Xi: R38; Xi: R41; N: R50**Most important adverse effects:** May be corrosive to metals. Harmful if swallowed or in contact with skin. Causes skin irritation. Causes serious eye damage. Harmful if inhaled. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.**2.2. Label elements****Label elements under CLP:****Hazard statements:** H290: May be corrosive to metals.

H302+312: Harmful if swallowed or in contact with skin.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H332: Harmful if inhaled.

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H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

**Signal words:** Danger

**Hazard pictograms:** GHS05: Corrosion  
GHS07: Exclamation mark  
GHS09: Environmental



**Precautionary statements:** P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Other hazards

**PBT:** This product is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** COPPER(II) CHLORIDE DIHYDRATE

**Contains:** Formula:  $\text{Cl}_2\text{Cu} \cdot 2\text{H}_2\text{O}$ . Molecular Weight: 170.48 g/mol

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a Doctor

**Eye contact:** Bathe the eye with running water for 15 minutes. Protect Uninjured eye. Remove contact lenses, if present and easy to do.

**Ingestion:** Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person Consult a doctor.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. Keep Patient warm. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** Seek urgent medical help immediately. See Other Information section.

**Eye contact:** Seek urgent medical help immediately. See Other Information section.

**Ingestion:** Seek urgent medical help immediately. See Other Information section.

**Inhalation:** Seek urgent medical help immediately. See Other Information section.

[cont...]

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**4.3. Indication of any immediate medical attention and special treatment needed**

**Section 5: Fire-fighting measures**

**5.1. Extinguishing media**

**Extinguishing media:** Water spray. Alcohol resistant foam. Carbon dioxide. Dry chemical powder.

**5.2. Special hazards arising from the substance or mixture**

**Exposure hazards:** In combustion emits toxic Hydrogen Chloride gas. Copper Oxides

**5.3. Advice for fire-fighters**

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**Section 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Wear a self-contained breathing apparatus and chemical protective clothing. Avoid inhalation of dust. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. Refer to section 8 of SDS for personal protection details.

**6.2. Environmental precautions**

**Environmental precautions:** Do not discharge into drains or rivers. Do not allow to enter into soil/subsoil.

**6.3. Methods and material for containment and cleaning up**

**Clean-up procedures:** Sweep up and shovel. Keep in suitable, closed containers for disposal. Pick up and arrange disposal without creating dust.

**6.4. Reference to other sections**

**Reference to other sections:** Refer to section 13 of SDS.

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** 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**

**Storage conditions:** Keep Container tightly closed in a cool, well-ventilated place. Hygroscopic

**7.3. Specific end use(s)**

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Workplace exposure limits:** No data available.

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**8.1. DNEL/PNEC Values**

**DNEL / PNEC** No data available.

**8.2. Exposure controls**

**Engineering measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridge as a backup to engineering controls,

**Hand protection:** For long term and short term hand contact wear nitrile rubber gloves, 0.11mm thick with a breakthrough time of 480mins.

**Eye protection:** Face-shield. Safety glasses.

**Skin protection:** Protective clothing. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash hands before breaks and after work.

**Section 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**State:** Crystals

**Colour:** Dark blue

**Odour:** No data available

**Evaporation rate:** No data available

**Oxidising:** No data available

**Solubility in water:** No data available

**Also soluble in:** No data available.

**Viscosity:** No data available

**Viscosity test method:** No data available.

**Melting point/range°C:** 100°C

**Relative density:** 2.51 g/cm<sup>3</sup>

**pH:** 3.0- 3.8

**9.2. Other information**

**Other information:** No data available.

**Section 10: Stability and reactivity**

**10.1. Reactivity**

**Reactivity:** No data available.

**10.2. Chemical stability**

**Chemical stability:** Stable under recommended storage conditions

**10.3. Possibility of hazardous reactions**

**Hazardous reactions:** No data available.

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**10.4. Conditions to avoid**

**Conditions to avoid:** Heat. Exposure to moisture.

**10.5. Incompatible materials**

**Materials to avoid:** Alkali metals.

**10.6. Hazardous decomposition products**

**Haz. decomp. products:** In the event of fire see section 5.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Relevant hazards for substance:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH DRM ING	Based on test data
Skin corrosion/irritation	DRM	Based on test data
Serious eye damage/irritation	OPT	Based on test data

**Symptoms / routes of exposure**

**Skin contact:** Seek urgent medical help immediately. See Other Information section.

**Eye contact:** Seek urgent medical help immediately. See Other Information section.

**Ingestion:** Seek urgent medical help immediately. See Other Information section.

**Inhalation:** Seek urgent medical help immediately. See Other Information section.

**Other information:** 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, 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. Symptoms observed shortly before death were: Shock, Renal failure.

**Section 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity values:** No data available.

**12.2. Persistence and degradability**

**Persistence and degradability:** The methods for determining the biological degradability are not applicable to inorganic substances.

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**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** No data available.

**12.4. Mobility in soil**

**Mobility:** No data available.

**12.5. Results of PBT and vPvB assessment**

**PBT identification:** This product is not identified as a PBT substance.

**12.6. Other adverse effects**

**Other adverse effects:** Very toxic to aquatic organisms.

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** 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.

**Disposal of packaging:** Dispose of as unused product.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Section 14: Transport information**

**14.1. UN number**

**UN number:** UN2802

**14.2. UN proper shipping name**

**Shipping name:** COPPER CHLORIDE

**14.3. Transport hazard class(es)**

**Transport class:** 8

**14.4. Packing group**

**Packing group:** III

**14.5. Environmental hazards**

**Environmentally hazardous:** Yes

**Marine pollutant:** Yes

**14.6. Special precautions for user**

**Section 15: Regulatory information**

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

**15.2. Chemical Safety Assessment**

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**Section 16: Other information**

**Other information**

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:** H290: May be corrosive to metals.

H302+312: Harmful if swallowed or in contact with skin.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H332: Harmful if inhaled.

H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

R21/22: Harmful in contact with skin and if swallowed.

R38: Irritating to skin.

R41: Risk of serious damage to eyes.

R50: Very toxic to aquatic organisms.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.