

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** dicopper chloride trihydroxide
- **CAS Number:**
1332-65-6
- **EC number:**
215-572-9
- **Index number:**
029-017-00-1
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Plant protection product
Fungicide
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Montanwerke Brixlegg AG
Werkstraße 1
A-6230 Brixlegg
Tel: +43-5337-6151-0
Fax: +43-5337-6151-2102
MSDS@Montanwerke-Brixlegg.com
Weitere Informationen unter: www.montanwerke-brixlegg.com
- **Further information obtainable from:** Montanwerke Brixlegg AG, Tel: +43-5337-6151-0
- **1.4 Emergency telephone number:** 112 (european emergency number)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.



GHS09 environment

Aquatic Acute 1 H400 (M=10) Very toxic to aquatic life.

Aquatic Chronic 1 H410 (M=1) Very toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS06



GHS09

- **Signal word** Danger
- **Hazard statements**
H301 Toxic if swallowed.
H332 Harmful if inhaled.
H410 Very toxic to aquatic life with long lasting effects.

(Contd. on page 2)

Trade name: dicopper chloride trihydroxide

(Contd. of page 1)

· **Precautionary statements**

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P321 Specific treatment (see on this label).
- P330 Rinse mouth.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**

· **CAS No. Description**

1332-65-6 dicopper chloride trihydroxide

· **Identification number(s)**

· **EC number:** 215-572-9

· **Index number:** 029-017-00-1

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
 In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

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

In case of fire, the following can be released:

Hydrogen chloride (HCl)

· **5.3 Advice for firefighters**

· **Protective equipment:**

Mouth respiratory protective device.

Wear fully protective suit.

· **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

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

Wear protective clothing.

(Contd. on page 3)

Trade name: dicopper chloride trihydroxide

(Contd. of page 2)

Avoid formation of dust.

· **6.2 Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.
 Inform respective authorities in case of seepage into water course or sewage system.

· **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.
 Dispose contaminated material as waste according to item 13.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Keep receptacles tightly sealed.
 Thorough dedusting.
 Ensure good ventilation/exhaustion at the workplace.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Prevent any seepage into the ground.
 Provide floor trough without outlet.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

· **Storage class:** 6.1 D

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

1332-65-6 dicopper chloride trihydroxide

WEL (Great Britain)	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³ dusts and mists, as Cu
---------------------	---

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
 Do not eat or drink while working.
 Wash hands before breaks and at the end of work.

· **Respiratory protection:** Filter P2

· **Protection of hands:**



Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Plastic gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

(Contd. on page 4)

Trade name: dicopper chloride trihydroxide

(Contd. of page 3)

- **Penetration time of glove material**
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Powder
· Colour:	Green
· Odour:	Nearly odourless
· Odour threshold:	Not determined.

· pH-value:	6 – 6.5 ca. 1% aqueous slurry
--------------------	----------------------------------

· Change in condition

· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	Undetermined.

· Flash point:	Not applicable.
-----------------------	-----------------

· Flammability (solid, gas):	Not determined.
-------------------------------------	-----------------

· Decomposition temperature:	220 °C
-------------------------------------	--------

· Auto-ignition temperature:	Product is not selfigniting. Not determined.
-------------------------------------	---

· Explosive properties:	Product does not present an explosion hazard.
--------------------------------	---

· Explosion limits:

· Lower:	Not determined.
· Upper:	Not determined.

· Vapour pressure at 20 °C:	< -1 hPa
------------------------------------	----------

· Density at 20 °C:	3.64 g/cm ³
----------------------------	------------------------

· Bulk density:	400 – 600 kg/m ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.

· Solubility in / Miscibility with water:

Dispersible.

· Partition coefficient: n-octanol/water:	Not determined.
--	-----------------

· Viscosity:

· Dynamic:	Not applicable.
· Kinematic:	Not applicable.

· 9.2 Other information	No further relevant information available.
--------------------------------	--

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.

(Contd. on page 5)

Trade name: dicopper chloride trihydroxide

(Contd. of page 4)

- **10.6 Hazardous decomposition products:**
Hydrogen chloride (HCl)
Chlorine

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- **Acute toxicity**
Toxic if swallowed.
Harmful if inhaled.

· LD/LC50 values relevant for classification:

Oral	LD50	950 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
Inhalative	LC50/4 h	2.83 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

EC50	0.5 mg/l (daphnia)
------	--------------------

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

HP6	Acute Toxicity
HP14	Ecotoxic

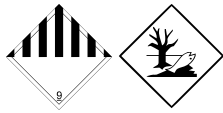
(Contd. on page 6)

Trade name: dicopper chloride trihydroxide

(Contd. of page 5)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN3077
· 14.2 UN proper shipping name · ADR · IMDG · IATA	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dicopper chloride trihydroxide) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dicopper chloride trihydroxide), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dicopper chloride trihydroxide)
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	
	
· Class · Label	9 Miscellaneous dangerous substances and articles. 9
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA):	Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· Transport category	3
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

(Contd. on page 7)

Trade name: dicopper chloride trihydroxide

(Contd. of page 6)

· **UN "Model Regulation":** UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DICOPPER CHLORIDE TRIHYDROXIDE), 9, III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category E1** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 3: Acute toxicity - oral – Category 3
 Acute Tox. 4: Acute toxicity - inhalation – Category 4
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- *** Data compared to the previous version altered.**

Annex: Exposure scenario

- **Description of the activities / processes covered in the Exposure Scenario**
 See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Solid
- **Concentration of the substance in the mixture** Raw material.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** Use only on hard ground.
- **Other operational conditions affecting worker exposure** Avoid breathing particles.
- **Other operational conditions affecting consumer exposure** No special measures required.
- **Other operational conditions affecting consumer exposure during the use of the product** Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures**
 Use product only in enclosed systems.
 Ensure that suitable extractors are available on processing machines
- **Personal protective measures**
 Do not inhale dust / smoke / mist.
 Filter P2
- **Measures for consumer protection** Ensure adequate labelling.

(Contd. on page 8)

Trade name: dicopper chloride trihydroxide

(Contd. of page 7)

- **Environmental protection measures**
- **Water** Do not allow to reach sewage system.
- **Soil** Prevent contamination of soil.
- **Disposal measures** Ensure that waste is collected and contained.
- **Disposal procedures**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

GB