

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

· **Product identifier**

· **Trade name:** COPPER NITRATE TRIHYDRATE

· **CAS Number:**
10031-43-3

· **EC number:**
221-838-5

· **Registration number**

Not available. The transition period under the REACH Regulation (Article 23) is not over.

· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the preparation**
Intermediate
Industrial uses

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

JINWANG EUROPE
ZI Jean Jaurès
218, Avenue Marie Curie
07800 La Voulte Sur Rhone
France

· **Further information obtainable from:** emilie.bertin@jinwang.eu

· **Emergency telephone number:**

England and Wales: +44 845 4647
Germany: +49 30 192 40
Austria: +43 1 406 43 43
Belgium: +32 70 245 245
Denemark: +45 82 12 12 12
Spain: +34 156 20420
France: +33 140 054 848
Italy: +39 02 6610 1029
Norway: +47 22 59 13 00
Netherlands: +31 30 274 88 88
Sweden: +46 8 33 12 31

2 Hazards identification

· **Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS03 flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidiser.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.


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Trade name: COPPER NITRATE TRIHYDRATE


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Skin Irrit. 2 H315 Causes skin irritation.


· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

 *Xn; Harmful*


R22: Harmful if swallowed.

 *Xi; Irritant*

R38-41: Irritating to skin. Risk of serious damage to eyes.

 *O; Oxidising*

R8: Contact with combustible material may cause fire.

 *N; Dangerous for the environment*

R50: Very toxic to aquatic organisms.

· **Information concerning particular hazards for human and environment: Not applicable.**

· **Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS03 GHS05 GHS07 GHS09

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

Nitrate de Cuivre trihydrate

· **Hazard statements**

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

· **Precautionary statements**

P221 Take any precaution to avoid mixing with combustibles.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P220 Keep/Store away from clothing/combustible materials.

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

P310 Immediately call a POISON CENTER or doctor/physician.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** *Not applicable.*

· **vPvB:** *Not applicable.*

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

10031-43-3 Copper Nitrate trihydrate

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Trade name: COPPER NITRATE TRIHYDRATE

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- **Identification number(s)**
- **EC number:** 221-838-5

4 First aid measures

- **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.
- **After inhalation:** 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. Then consult a doctor.
- **After swallowing:** Call for a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Keep away from heat and direct sunlight.
- **Information about fire - and explosion protection:** Protect from heat.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **Recommended storage temperature:** Storage temperature : Room temperature

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

8 Exposure controls/personal protection

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

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:** Not required.

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Respiratory protection:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

· **Material of 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.

· **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:**



Tightly sealed goggles

· **Body protection:**

Protective work clothing

Use protective suit.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Crystalline powder

Colour: Blue

· **Odour:** Acidic

· **pH-value:** Not applicable.

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Trade name: COPPER NITRATE TRIHYDRATE

- | |
|---|
| · Change in condition
Melting point/Melting range: 114 °C
Boiling point/Boiling range: Undetermined. |
| · Flash point: Not applicable. |
| · Flammability (solid, gaseous): Contact with combustible material may cause fire. |
| · Ignition temperature:
Decomposition temperature: 170 °C |
| · Self-igniting: Not determined. |
| · Danger of explosion: Not determined. |
| · Explosion limits:
Lower: Not determined.
Upper: Not determined. |
| · Vapour pressure: Not applicable. |
| · Density at 20 °C: 2.32 g/cm ³ |
| · Solubility in / Miscibility with water at 20 °C: 1306.16 g/l |
| · Solvent content:
Organic solvents: 0.0 %
VOC (EC) 0.00 % |
| · Other information No further relevant information available. |

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
Heat
Water
- **Incompatible materials:**
Oxidizing materials
Reducing agents
Combustible substances
- **Hazardous decomposition products:** Nitrogen oxides (NO_x)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values relevant for classification:		
10031-43-3 Copper Nitrate trihydrate		
Oral	LD50	940 mg/kg (rat)
- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Strong irritant with the danger of severe eye injury.

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Trade name: COPPER NITRATE TRIHYDRATE

- **Sensitization:** No sensitizing effects known.


12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** Highly soluble in water. Final receiver compartment: groundwater.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations


- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system. Discharge into drains or the environment prohibited. Waste disposal must be in accordance with the Regulations and Orders Prefectural into force. Although empty contaminated packaging, deliver to an approved disposal.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|---|
| · UN-Number | |
| · ADR, IMDG, IATA | UN1477 |
| · UN proper shipping name | |
| · ADR | 1477 NITRATES, INORGANIC, N.O.S. (Copper Nitrate trihydrate), ENVIRONMENTALLY HAZARDOUS |
| · IMDG | NITRATES, INORGANIC, N.O.S., MARINE POLLUTANT |
| · IATA | NITRATES, INORGANIC, N.O.S. |
| · Transport hazard class(es) | |
| · ADR, IMDG | |
|  | |
| · Class | 5.1 Oxidising substances. |

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Trade name: COPPER NITRATE TRIHYDRATE

· Label	5.1
· IATA	
	
· Class	5.1 Oxidising substances.
· Label	5.1
· Packing group	
· ADR, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Oxidising substances.
· EMS Number:	F-A,S-Q
· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1 kg
· Transport category	2
· Tunnel restriction code	E
· UN "Model Regulation":	UN1477, NITRATES, INORGANIC, N.O.S. (Copper Nitrate trihydrate), ENVIRONMENTALLY HAZARDOUS, 5.1, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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 Harmonized 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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

- *** Data compared to the previous version altered.**