

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

· **Product identifier**

· **Trade name:** COPPER NITRATE SOLUTION

· **CAS Number:** 3251-23-8

· **EINECS 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** Surface treatment, industrial use.

· **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](mailto: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

Danemark : +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**



GHS05 corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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



C; Corrosive

R35: Causes severe burns.



Xn; Harmful

R22: Harmful if swallowed.

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*Xi; Irritant*

*R41: Risk of serious damage to eyes.*



*N; Dangerous for the environment*

*R50: Very toxic to aquatic organisms.*

· **Information concerning particular hazards for human and environment:**

*The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.*

· **Classification system:**

*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*

· **Label elements**

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

*The product is classified and labelled according to the CLP regulation.*

· **Hazard pictograms**



GHS05



GHS07



GHS09

· **Signal word** *Danger*

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

*Copper Nitrate trihydrate*

· **Hazard statements**

*H302 Harmful if swallowed.*

*H314 Causes severe skin burns and eye damage.*

*H400 Very toxic to aquatic life.*

· **Precautionary statements**

*P260 Do not breathe dust/fume/gas/mist/vapours/spray.*

*P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*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.*

*P405 Store locked up.*

*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: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

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CAS: 10031-43-3 EINECS: 221-838-5	Copper Nitrate trihydrate  Xn R22;  Xi R38-41;  O R8;  N R50  Ox. Sol. 2, H272;  Eye Dam. 1, H318;  Aquatic Acute 1, H400;  Acute Tox. 4, H302;  Skin Irrit. 2, H315	43-52%
CAS: 7697-37-2 EINECS: 231-714-2	nitric acid  C R35;  O R8  Ox. Liq. 3, H272;  Skin Corr. 1A, H314	1-8%
CAS: 7732-18-5 EINECS: 231-791-2	water, distilled, conductivity or of similar purity	45-56%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

#### 4 First aid measures

· **Description of first aid measures**

· **General information:**

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:**

Do not induce vomiting; call for medical help immediately.

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:**

CO<sub>2</sub>, 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<sub>x</sub>)

· **Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

#### 6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Open and handle receptacle with care.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **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:** None.
- **Recommended storage temperature:** Storage temperature : Room temperature
- **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:**

7697-37-2 nitric acid

WEL Short-term value: 2.6 mg/m<sup>3</sup>, 1 ppm

- **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:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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· **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: Liquid

Colour: Yellow

· **Odour:** Acidic

· **pH-value at 20 °C:** 2 - 4

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 83 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

Decomposition temperature: 170 °C

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapour pressure at 20 °C:** 23 hPa

· **Density at 20 °C:** 2.32 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water:**

Fully miscible.

· **Solvent content:**

Organic solvents: 0.0 %

Water: 48.0 %

VOC (EC) 0.00 %

· **Solids content:** 50.0 %

· **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

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- **Incompatible materials:**
  - Oxidizing materials
  - Reducing agents
- **Hazardous decomposition products:** Nitrogen oxides (NO<sub>x</sub>)

## 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)
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- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful  
Irritant

## 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** No further relevant information available.
- **Ecotoxicological effects:**
  - **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
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.



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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

· <b>UN-Number</b> · <b>ADR, IMDG, IATA</b>	UN3264
· <b>UN proper shipping name</b> · <b>ADR</b>  · <b>IMDG</b>  · <b>IATA</b>	3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), ENVIRONMENTALLY HAZARDOUS CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), MARINE POLLUTANT CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
· <b>Transport hazard class(es)</b>  · <b>ADR, IMDG</b>	
	
· <b>Class</b> · <b>Label</b>	8 Corrosive substances. 8
· <b>IATA</b>	
	
· <b>Class</b> · <b>Label</b>	8 Corrosive substances. 8
· <b>Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b>	Yes Symbol (fish and tree)
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b> · <b>Segregation groups</b>	Warning: Corrosive substances. 80 F-A,S-B Acids
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Transport category</b> · <b>Tunnel restriction code</b>	1L 2 E

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· **UN "Model Regulation":** UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), ENVIRONMENTALLY HAZARDOUS, 8, II

### **15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): 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.*

· **Relevant phrases**

- H272 May intensify fire; oxidiser.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H400 Very toxic to aquatic life.
- R22 Harmful if swallowed.
- R35 Causes severe burns.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R50 Very toxic to aquatic organisms.
- R8 Contact with combustible material may cause fire.

· **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
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

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