

Revision: 2.0
(Replaces revision 1.1 of 16 April 2021)Revision date:
Date printed:19 April 2021
12 August 2023**Section 1. Identification****1.1 Product Identifier** 0995

Product Name COPPER (II) NITRATE 3H₂O pure

CAS Number 10031-43-3

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula $Cu(NO_3)_2 \cdot 3H_2O = 241.60$

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd

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(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Oxidising solid, category 2
Skin corrosion/irritation, category 1B
Serious eye damage/irritation, category 1
Hazard to aquatic environment, category 1
Hazard to aquatic environment, category 2

H272: May intensify fire; oxidizer.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H400: Very toxic to aquatic life.
H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements**Labelling according to regulation 1272/2008/EC**

Signal word Danger

Hazard Pictograms



Hazard Statements May intensify fire; oxidizer. Causes severe skin burns and eye damage. Very toxic to aquatic life with long lasting effects.

Precautionary Statements Keep away from heat / sparks/open flames/hot surfaces - No smoking. Avoid release to the environment. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Cupric nitrate	10031-43-3	221-838-5		>99%	Ox. Sol. 2, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 2

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Thoroughly wash off skin with soap and water. Remove contaminated clothing immediately and wash before re-use.
Inhalation	Remove from exposure.
Ingestion	Wash out the patients mouth thoroughly with water. Induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & 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. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Consider what other flammable materials are present and act accordingly.
Unsuitable Media	Nothing specified.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.
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5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.
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Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Avoid breathing dust.
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6.2 Environmental precautions

Environmental Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

Major Spillage Shovel/sweep up into container for removal Wash area down with copious amounts of water.
Minor Spillage Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.
Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)	Short Term 15min period		
Cupric nitrate	10031-43-3	>99%	-	1.0 mg/m-3	2.0 ppm	-

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection If process creates significant amounts of dust use L.E.V. or wear suitable dust mask.
Hand Protection Wear gloves.
Eye Protection Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance Pale blue crystals.
Odour No specific odour.
pH 4 @ 20°C
Boiling Point Not available
Melting Point 114°C
Flash Point Not applicable
Upper Flammable Limit Not applicable
Lower Flammable Limit Not applicable
Auto Ignition Not applicable
Explosive Properties No.
Oxidising Properties No.
Vapour Pressure Not applicable
Relative Density Not available
Water Solubility Very soluble in water.

9.2 Other information

No data available.

Section 10. Stability & Reactivity

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| 10.1 | Reactivity | No data available. |
| 10.2 | Chemical Stability | Stable under normal conditions |
| 10.3 | Possibility of hazardous reactions | No data available. |
| 10.4 | Conditions to Avoid | No specific conditions. |
| 10.5 | Incompatible Materials | No specific materials to avoid. |
| 10.6 | Hazardous Decomposition Products | May produce hazardous fumes if involved in a fire. |

Section 11. Toxicological Information

11.1 Information on toxicological effects

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| Eyes | Causes serious eye damage. |
| Skin | Causes severe burns. |
| LD50 Skin | Not available |
| Ingestion | Ingestion of large amounts will produce vomiting, gastric pain, dizziness, convulsions, shock, coma and possibly death. As little as 10g has been reported as causing death although victims have recovered after ingesting much larger amounts. Copper salts tend to cause vomiting and for this reason poisoning by ingestion is rare. Chronic poisoning may give rise to kidney damage, enlargement of the liver and jaundice. |
| LD50 Oral | Not available |
| Inhalation | Inhalation of dust will produce irritation of the eyes, nose, throat and respiratory tract. |
| LD50 Inhalation | Not available |
| TCLo | Not available |
| Carcinogenicity | Not considered to be a carcinogen. |
| Mutagenicity | Not considered to be a mutagen. |
| Reproductive Effects | None identified. |

Section 12. Ecological

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| 12.1 | Toxicity | Copper salts are harmful to the environment. |
| | LC50 Algal | Not available |
| | LC50 Crustacea | Not available |
| | LC50 Fish | 0.29mg/l Fish (96 hours) |
| 12.2 | Persistence and degradability | No data available. |
| 12.3 | Bioaccumulative potential | No data available. |
| 12.4 | Mobility in soil | No data available. |
| 12.5 | Results of PBT & vPvB assessment | Assessment not required. |
| 12.6 | Other adverse effects | None known at present. |

Section 13. Disposal Considerations

13.1 Waste treatment methods

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| Disposal Methods | Do not dispose of as domestic waste. |
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Contaminated Packaging Wash out containers with water.

Section 14. Transport Information

14.1 UN Number	1477
14.2 Proper Shipping Name	Nitrates, inorganic, N.O.S.
14.3 Transport classes	
UN classification	5.1
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	50
Tunnel Restriction Code	E
14.4 Packing Group	II
14.5 Environment hazards	Marine pollutant.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Oxidising solid, category 2; Skin corrosion/irritation, category 1B; Serious eye damage/irritation, category 1; Hazard to aquatic environment, category 1; Hazard to aquatic environment, category 2

Signal word Danger

Hazard Pictograms



Hazard Statements H272, H314+H318, H400+H411
May intensify fire; oxidizer. Causes severe skin burns and eye damage. Very toxic to aquatic life with long lasting effects.

Precautionary Statements P210, P273, P302+P352, P305+P351+P338
Keep away from heat / sparks/open flames/hot surfaces - No smoking. Avoid release to the environment. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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