

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper(II) nitrate, 25 g**

Print date: 14.04.2015

Product code: 9991485

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Copper(II) nitrate, 25 g

CAS No: 10031-43-3

EC No: 221-838-5

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Laboratory chemicals

**1.3. Details of the supplier of the safety data sheet****Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH

Street: Im Forstgarten 1

Place: D-66459 Kirkel

Internet: www.conatex.com

**Supplier**

Company name: Carbolution Chemicals GmbH

Street: Im Stadtwald, Gebäude A1.2

Place: D-66123 Saarbrücken

Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232

e-mail: michael.bauer@carbolution-chemicals.de

Internet: www.carbolution-chemicals.de

**1.4. Emergency telephone number:** +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: O - Oxidizing, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment

R phrases:

Contact with combustible material may cause fire.

Harmful if swallowed.

Irritating to skin.

Risk of serious damage to eyes.

Very toxic to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Oxidising solid: Ox. Sol. 2

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Hazardous to the aquatic environment: Aquatic Acute 1 (M-Factor (self-classification) = 1)

Hazardous to the aquatic environment: Aquatic Chronic 1 (M-Factor (self-classification) = 1)

Hazard Statements:

May intensify fire; oxidiser.

Harmful if swallowed.

Causes skin irritation.

Causes serious eye damage.

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Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Hazardous components which must be listed on the label

Copper(II) nitrate

Signal word:

Danger

Pictograms:

GHS03-GHS05-GHS07-GHS09



##### Hazard statements

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H410	Very toxic to aquatic life with long lasting effects.

##### Precautionary statements

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/container to Waste management.

## SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Sum formula:	CuN2O6 · 3H2O
Molecular weight:	241,60

##### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
221-838-5	Copper(II) nitrate	100 %
10031-43-3	O - Oxidizing, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R08-22-38-41-50-53	
	Ox. Sol. 2, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H272 H302 H315 H318 H400 H410	

Full text of R-, H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### After inhalation

Provide fresh air.

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**After contact with skin**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

**After contact with eyes**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

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

No data available

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

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

The product itself does not burn.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

**Advice on protection against fire and explosion**

Keep away from sources of ignition. - No smoking.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool place. Keep away from sources of ignition. - No smoking.

**Advice on storage compatibility**

Keep away from combustible material.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

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#### **8.2. Exposure controls**

##### **Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

##### **Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

##### **Eye/face protection**

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

##### **Hand protection**

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

##### **Skin protection**

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

##### **Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

### **SECTION 9: Physical and chemical properties**

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

Physical state:	solid
Colour:	dark blue
Odour:	No data available

#### **Test method**

pH-Value:	No data available
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##### **Changes in the physical state**

Initial boiling point and boiling range:	No data available
Sublimation point:	No data available
Softening point:	No data available
Flash point:	No data available

##### **Flammability**

Solid:	No data available
Gas:	No data available

Lower explosion limits:	No data available
Upper explosion limits:	No data available
Ignition temperature:	No data available

##### **Auto-ignition temperature**

Solid:	No data available
Gas:	No data available

Vapour pressure:	No data available
Vapour pressure:	No data available

Density:	No data available
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Water solubility:	No data available
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Partition coefficient:	No data available
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Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Flow time:	No data available
Vapour density:	No data available
Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available

#### **9.2. Other information**

Solid content:	No data available
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### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

No data available

#### **10.3. Possibility of hazardous reactions**

No data available

#### **10.4. Conditions to avoid**

In case of impact or pressure influence: Explosion hazard. Remove all sources of ignition. Keep away from heat. Ignition hazard.

#### **10.5. Incompatible materials**

Keep away from: material, combustible.

#### **10.6. Hazardous decomposition products**

No data available

### SECTION 11: Toxicological information

#### **11.1. Information on toxicological effects**

##### **Toxicokinetics, metabolism and distribution**

Toxicological data are not available.

##### **Acute toxicity**

Acute toxicity, dermal.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
10031-43-3	Copper(II) nitrate				
	oral	ATE	500 mg/kg		

##### **Irritation and corrosivity**

Irritating to eyes. Risk of serious damage to eyes. After skin contact: Irritant.

##### **Sensitising effects**

No data available

##### **Severe effects after repeated or prolonged exposure**

No data available

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

##### **Specific effects in experiment on an animal**

No data available

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**Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**Practical experience****Observations relevant to classification**

No data available

**SECTION 12: Ecological information****12.1. Toxicity**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**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 and vPvB assessment**

No data available

**12.6. Other adverse effects**

No data available

**Further information**

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information**

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#### Land transport (ADR/RID)

<b>14.1. UN number:</b>	UN1477
<b>14.2. UN proper shipping name:</b>	NITRATES, INORGANIC, N.O.S.
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Classification code:	O2
Special Provisions:	511
Limited quantity:	1 kg
Transport category:	2
Hazard No:	50
Tunnel restriction code:	E

#### Other applicable information (land transport)

E2

#### Inland waterways transport (ADN)

<b>14.1. UN number:</b>	UN1477
<b>14.2. UN proper shipping name:</b>	NITRATES, INORGANIC, N.O.S.
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Classification code:	O2
Special Provisions:	511
Limited quantity:	1 kg

#### Other applicable information (inland waterways transport)

E2

#### Marine transport (IMDG)

<b>14.1. UN number:</b>	UN1477
<b>14.2. UN proper shipping name:</b>	NITRATES, INORGANIC, N.O.S.
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Special Provisions:	-
Limited quantity:	1 kg
EmS:	F-A, S-Q

#### Other applicable information (marine transport)

E2

#### Air transport (ICAO)

<b>14.1. UN number:</b>	UN1477
<b>14.2. UN proper shipping name:</b>	NITRATES, INORGANIC, N.O.S.
<b>14.3. Transport hazard class(es):</b>	5.1
<b>14.4. Packing group:</b>	II
Hazard label:	5.1
Special Provisions:	A3
Limited quantity Passenger:	2.5 kg
IATA-packing instructions - Passenger:	558
IATA-max. quantity - Passenger:	5 kg

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IATA-packing instructions - Cargo: 562  
IATA-max. quantity - Cargo: 25 kg

**Other applicable information (air transport)**

E2  
: Y544

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: yes

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information****Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

**National regulatory information**

Water contaminating class (D): 3 - highly water contaminating

**SECTION 16: Other information****Relevant R-phrases (Number and full text)**

- |    |                                                                 |
|----|-----------------------------------------------------------------|
| 08 | Contact with combustible material may cause fire.               |
| 22 | Harmful if swallowed.                                           |
| 38 | Irritating to skin.                                             |
| 41 | Risk of serious damage to eyes.                                 |
| 50 | Very toxic to aquatic organisms.                                |
| 53 | May cause long-term adverse effects in the aquatic environment. |

**Relevant H- and EUH-phrases (Number and full text)**

- |      |                                                       |
|------|-------------------------------------------------------|
| H272 | May intensify fire; oxidiser.                         |
| H302 | Harmful if swallowed.                                 |
| H315 | Causes skin irritation.                               |
| H318 | Causes serious eye damage.                            |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |