

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Copper(II) oxide, powder, 100 g

Print date: 14.04.2015

Product code: 9991488

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

Copper(II) oxide, powder, 100 g

CAS No: 1317-38-0

EC No: 215-269-1

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: Xn - Harmful, N - Dangerous for the environment

R phrases:

Harmful if swallowed.

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:

Acute toxicity: Acute Tox. 4

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:

Harmful if swallowed.

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) oxide

Signal word: Warning

Pictograms: GHS07-GHS09

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Hazard statements

H302 Harmful if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
P501 Dispose of contents/container to Waste management.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: CuO
Molecular weight: 79,55

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] | |
| 215-269-1 | Copper(II) oxide | 100 % |
| 1317-38-0 | Xn - Harmful, N - Dangerous for the environment R22-50-53 | |
| | Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1; H302 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.

After contact with skin

Wash with plenty of water. Change contaminated clothing.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, 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.

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5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

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

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

Only use the material in places where open light, fire and other flammable sources can be kept away.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

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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: | black |
| Odour: | No data available |

Test method

pH-Value: No data available

Changes in the physical state

| | |
|--|-------------------|
| Melting point: | 1336 °C |
| 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: | 6,32 g/cm ³ |
| Water solubility: | No data available |

Partition coefficient: No data available

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

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.3. Possibility of hazardous reactions

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No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Oxidizing agents, strong.

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 |
| 1317-38-0 | Copper(II) oxide | | | | |
| | oral | ATE | 500 mg/kg | | |

Irritation and corrosivity

No data available

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

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

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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**Land transport (ADR/RID)**

| | |
|--|--|
| 14.1. UN number: | UN 3077 |
| 14.2. UN proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| 14.3. Transport hazard class(es): | 9 |
| 14.4. Packing group: | III |
| Hazard label: | 9 |
| Classification code: | M7 |
| Special Provisions: | 274 335 601 |
| Limited quantity: | 5 kg |
| Transport category: | 3 |
| Hazard No: | 90 |
| Tunnel restriction code: | E |

Other applicable information (land transport)

E1

Inland waterways transport (ADN)

| | |
|--|--|
| 14.1. UN number: | UN 3077 |
| 14.2. UN proper shipping name: | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| 14.3. Transport hazard class(es): | 9 |

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14.4. Packing group: III
 Hazard label: 9
 Classification code: M7
 Special Provisions: 274 335 601
 Limited quantity: 5 kg

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number: UN 3077
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9
 Special Provisions: 274, 335, 966, 967
 Limited quantity: 5 kg
 EmS: F-A, S-F

Other applicable information (marine transport)

E1

Air transport (ICAO)

14.1. UN number: UN 3077
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9
 Special Provisions: A97 A158 A179
 Limited quantity Passenger: 30 kg G
 IATA-packing instructions - Passenger: 956
 IATA-max. quantity - Passenger: 400 kg
 IATA-packing instructions - Cargo: 956
 IATA-max. quantity - Cargo: 400 kg

Other applicable information (air transport)

E1

: Y956

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

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Relevant R-phrases (Number and full text)

- 22 Harmful if swallowed.
- 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)

- H302 Harmful if swallowed.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.