

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper, powder, 100 g**

Print date: 14.04.2015

Product code: 9991473

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

Copper, powder, 100 g

CAS No: 7440-50-8

EC No: 231-159-6

**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: F - Highly flammable, N - Dangerous for the environment

R phrases:

Highly flammable.

Very toxic to aquatic organisms.

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

Hazard categories:

Flammable solid: Flam. Sol. 1

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

Hazard Statements:

Flammable solid.

Very toxic to aquatic life.

**2.2. Label elements**

Signal word:

Danger

Pictograms:

GHS02-GHS09



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#### Hazard statements

H228 Flammable solid.  
 H400 Very toxic to aquatic life.

#### 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: Cu  
 Molecular weight: 63,55

#### 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] |          |
| 231-159-6 | Copper, powder  | 100 %    |
| 7440-50-8 | F - Highly flammable, N - Dangerous for the environment R11-50  |          |
|           | Flam. Sol. 1, Aquatic Acute 1; H228 H400                        |          |

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.

##### After ingestion

Rinse mouth immediately and drink plenty of water.

#### 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

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

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. Avoid generation of dust. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation. Remove persons to safety. Do not breathe dust.

##### 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.

###### 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

###### Exposure limits (EH40)

| CAS No    | Substance                       | ppm | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|-----------|---------------------------------|-----|-------------------|-----------|---------------|--------|
| 7440-50-8 | Copper, dusts and mists (as Cu) | -   | 1                 |           | TWA (8 h)     | WEL    |
|           |                                 | -   | 2                 |           | STEL (15 min) | WEL    |

##### 8.2. Exposure controls

###### Protective and hygiene measures

Change contaminated clothing. Wash hands before breaks and after work. 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).

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## SECTION 9: Physical and chemical properties

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

Physical state: solid  
 Colour: light red  
 Odour: No data available

#### Test method

pH-Value: No data available

#### Changes in the physical state

Melting point: 1083 °C  
 Initial boiling point and boiling range: 2567 °C  
 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

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

No data available

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**10.4. Conditions to avoid**

No data available

**10.5. Incompatible materials**

Oxidizing agents, strong.

**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**

Toxicological data are not available.

**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 life.

**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).

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## 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)

|  |                                 |
|--|---------------------------------|
| <b>14.1. UN number:</b>                  | UN3089                          |
| <b>14.2. UN proper shipping name:</b>    | METAL POWDER, FLAMMABLE, N.O.S. |
| <b>14.3. Transport hazard class(es):</b> | 4.1                             |
| <b>14.4. Packing group:</b>              | II                              |
| Hazard label:                            | 4.1                             |
| Classification code:                     | F3                              |
| Special Provisions:                      | 552                             |
| Limited quantity:                        | 1 kg                            |
| Transport category:                      | 2                               |
| Hazard No:                               | 40                              |
| Tunnel restriction code:                 | E                               |

#### Other applicable information (land transport)

E2

### Inland waterways transport (ADN)

|  |                                 |
|--|---------------------------------|
| <b>14.1. UN number:</b>                  | UN3089                          |
| <b>14.2. UN proper shipping name:</b>    | METAL POWDER, FLAMMABLE, N.O.S. |
| <b>14.3. Transport hazard class(es):</b> | 4.1                             |
| <b>14.4. Packing group:</b>              | II                              |
| Hazard label:                            | 4.1                             |
| Classification code:                     | F3                              |
| Special Provisions:                      | 552                             |
| Limited quantity:                        | 1 kg                            |

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

E2

#### Marine transport (IMDG)

|  |                                 |
|--|---------------------------------|
| <b>14.1. UN number:</b>                  | UN3089                          |
| <b>14.2. UN proper shipping name:</b>    | METAL POWDER, FLAMMABLE, N.O.S. |
| <b>14.3. Transport hazard class(es):</b> | 4.1                             |
| <b>14.4. Packing group:</b>              | II                              |
| Hazard label:                            | 4.1                             |
| Special Provisions:                      | -                               |
| Limited quantity:                        | 1 kg                            |
| EmS:                                     | F-G, S-G                        |

#### Other applicable information (marine transport)

E2

#### Air transport (ICAO)

|  |                                 |
|--|---------------------------------|
| <b>14.1. UN number:</b>                  | UN3089                          |
| <b>14.2. UN proper shipping name:</b>    | METAL POWDER, FLAMMABLE, N.O.S. |
| <b>14.3. Transport hazard class(es):</b> | 4.1                             |
| <b>14.4. Packing group:</b>              | II                              |
| Hazard label:                            | 4.1                             |
| Special Provisions:                      | A3                              |
| Limited quantity Passenger:              | 5 kg                            |
| IATA-packing instructions - Passenger:   | 445                             |
| IATA-max. quantity - Passenger:          | 15 kg                           |
| IATA-packing instructions - Cargo:       | 448                             |
| IATA-max. quantity - Cargo:              | 50 kg                           |

#### Other applicable information (air transport)

E2

: Y441

#### 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)

|    |                                  |
|----|----------------------------------|
| 11 | Highly flammable.                |
| 50 | Very toxic to aquatic organisms. |

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

|      |                             |
|------|-----------------------------|
| H228 | Flammable solid.            |
| H400 | Very toxic to aquatic life. |