



SAFETY DATA SHEET

Copper powder $\geq 99.9\%$, extra pure $< 75 \mu\text{m}$

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

| | |
|--------------------------------|---|
| Trade name: | Copper powder $\geq 99.9\%$, extra pure $< 75 \mu\text{m}$ |
| Product no.: | CUP23 |
| Other means of identification: | EC No.: 231-159-6 CAS No.: 7440-50-8 |

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

| | |
|---|----------------|
| Relevant identified uses of the substance or mixture: | Laboratory use |
| Uses advised against: | None known. |

1.3. Details of the supplier of the safety data sheet

| | |
|----------------------|---|
| Company and address: | Laboratoriumdiscounter Zandvoortstraat 75 1976BN IJmuiden Netherlands Tel: +31 255 700 210 www.laboratoriumdiscounter.nl/en/ |
| E-mail: | info@laboratoriumdiscounter.nl |
| Revision: | 10/03/2023 |
| SDS Version: | 1.0 |

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 "First aid measures".

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Aquatic Acute 1; H400, Very toxic to aquatic life.
Aquatic Chronic 2; H411, Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s):



Signal word:

Warning

Hazard statement(s):

Very toxic to aquatic life with long lasting effects. (H410)

Safety statement(s):

General:

-



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| | |
|------------------------------|---|
| <i>Prevention:</i> | Avoid release to the environment. (P273) |
| <i>Response:</i> | Collect spillage. (P391) |
| <i>Storage:</i> | - |
| <i>Disposal:</i> | Dispose of contents/container in accordance with local regulation. (P501) |
| <i>Hazardous substances:</i> | None known. |
| <i>Additional labelling:</i> | Not applicable. |

2.3. Other hazards

| | |
|-----------------------------|--|
| <i>Additional warnings:</i> | This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. |
|-----------------------------|--|

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

| Product/substance | Identifiers | % w/w | Classification | Note |
|-------------------|--|---------|--|------|
| Copper powder | CAS No.: 7440-50-8 EC No.: 231-159-6 UK-REACH: Index No.: | 95-100% | Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411 | |

3.2. Mixtures

Not applicable. This product is a substance.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

-

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

| | |
|-----------------------------|--|
| <i>General information:</i> | In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink. |
| <i>Inhalation:</i> | Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh |

*Skin contact:*

air and stay with him/her.

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact:

Upon irritation of the eye: Remove contact lenses and open eyes widely. Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Seek medical assistance and continue flushing during transport.

Ingestion:

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns:

Not applicable.

4.2. Most important symptoms and effects, both acute and delayed

None known.

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

None known.

Information to medics:

Bring this safety data sheet or the label from this product.

SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist. Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

No specific requirements.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

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

Collect spills carefully. Moist the material with water in order to prevent the formation and propagation of dust.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material:

Keep only in original packaging.

Storage temperature:

Room temperature 15 to 25°C

Incompatible materials:

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

General recommendations:

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios:

There are no exposure scenarios implemented for this product.

Exposure limits:

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures:

Airborne gas and dust concentrations must be kept at a minimum. Provide efficient mechanical ventilation. If not possible use suitable respiratory equipment.

Hygiene measures:

In between use of the product and at the end



Measures to avoid environmental exposure:

of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.


Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment


Generally:

Use only UKCA marked protective equipment.


Respiratory Equipment:

| Type | Class | Colour | Standards | |
|------|-------|--------|-----------|---|
| SL | P3 | White | EN149 |  |


Skin protection:

| Recommended | Type/Category | Standards | |
|---|---------------|-----------|---|
| Dedicated work clothing should be worn. | - | - |  |

Hand protection:

| Material | Glove thickness (mm) | Breakthrough time (min.) | Standards | |
|----------|----------------------|--------------------------|-------------------------|---|
| Nitrile | 0,2 | > 480 | EN374-2, EN374-3, EN388 |  |

Eye protection:

| Type | Standards | |
|-----------------------------------|-----------|---|
| Safety glasses with side shields. | EN166 |  |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:

Powder

Colour:

Brown

Odour / Odour threshold:

Testing not relevant or not possible due to the nature of the product.

pH:

Testing not relevant or not possible due to the nature of the product.

Density (g/cm³):

8.96

Kinematic viscosity:

Does not apply to solids.

Particle characteristics:

Particle size: <75 µm

Phase changes

Melting point/Freezing point (°C):

1083



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| | |
|---|--|
| <i>Softening point/range (waxes and pastes) (°C):</i> | Does not apply to solids. |
| <i>Boiling point (°C):</i> | 2562 |
| <i>Vapour pressure:</i> | Testing not relevant or not possible due to the nature of the product. |
| <i>Relative vapour density:</i> | Does not apply to solids. |
| <i>Decomposition temperature (°C):</i> | Testing not relevant or not possible due to the nature of the product. |

Data on fire and explosion hazards

| | |
|---|--|
| <i>Flash point (°C):</i> | Does not apply to solids. |
| <i>Flammability (°C):</i> | Testing not relevant or not possible due to the nature of the product. |
| <i>Auto-ignition temperature (°C):</i> | Testing not relevant or not possible due to the nature of the product. |
| <i>Lower and upper explosion limit (% v/v):</i> | Does not apply to solids. |

Solubility

| | |
|-------------------------------------|--|
| <i>Solubility in water:</i> | Insoluble |
| <i>n-octanol/water coefficient:</i> | Testing not relevant or not possible due to the nature of the product. |
| <i>Solubility in fat (g/L):</i> | Testing not relevant or not possible due to the nature of the product. |

9.2. Other information

| | |
|--|--------------------|
| <i>Other physical and chemical parameters:</i> | No data available. |
|--|--------------------|

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Based on available data, the classification criteria are not met.



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Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects

None known.

Endocrine disrupting properties

Not applicable.

Other information

None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No data available.

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

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

Not applicable.

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse



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effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 14 – Ecotoxic

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

Not applicable.

Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

| | 14.1 UN / ID | 14.2 UN proper shipping name | 14.3 Hazard class(es) | 14.4 PG* | 14.5 Env** | Other information: |
|------|-----------------|------------------------------------|--------------------------|-------------|---------------|-----------------------|
| ADR | - | - | - | - | - | - |
| IMDG | - | - | - | - | - | - |
| IATA | - | - | - | - | - | - |

* Packing group

** Environmental hazards

Additional information

This product is within scope of the regulations of transport of dangerous goods.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application:

No special.

Demands for specific education:

No specific requirements.

SEVESO - Categories / dangerous substances:

E1 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 100 tonnes / (upper-tier): 200 tonnes



Additional information:

Sources:

Not applicable.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3

H400, Very toxic to aquatic life.

H411, Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail



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RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The safety data sheet is validated by

Chris

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en