

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54850 Copper Powder

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Revised edition: 28.03.2022

Version: 3

Printed: 24.01.2023

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product Name: Copper Powder

Article No.: 54850

UFI: --

1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:

*Sintered metal storage, sinter filter, friction materials
Carbon brushes
Sintered parts
Electrotechnical contact material*

Uses advised against:

1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG

Address: Hauptstr. 41-47, 88317 Aichstetten, Germany

Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606

Internet: www.kremer-pigmente.com

E-Mail: info@kremer-pigmente.com

Importer: --

1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

1.4.2 Poison Center:

2. Hazards Identification

2.1. Classification of the Substance or Mixture

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

*Acute aquatic toxicity, hazard category 1
Hazardous to the aquatic environment, hazard category 2*

H410	Very toxic to aquatic life with long lasting effects.
Cat.: 1	
H411	Toxic to aquatic life with long lasting effects.
Cat.: 2	

Possible Environmental Effects:

2.2. Label Elements

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

Hazard designation:



GHS09-1

Signal word:

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Warning

Hazard designation:

H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Safety designation:

P273	Avoid release to the environment.
P391	Collect spillage
P501	Dispose of contents/ container according to regional, national and international regulations.

Hazardous components for labelling:

2.3. Other Hazards

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization:

Information on Components / Hazardous Ingredients:

Copper (H400-411); REACH Reg.No.: 01-2119480154-42-0076

CAS-Nr: 7440-50-8

EINECS-Nr: 231-159-6

EC-Nr: 029-024-00-X

Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

Seek medical attention in case of complaints.

After inhalation:

Supply fresh air.

Consult physician if symptoms persist.

After skin contact:

This product is in general not irritating to the skin.

After eye contact:

Rinse open eye for several minutes under running water. Should irritation continue, seek medical advice.

After ingestion:

Consult a doctor.

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

No further information available.

Effects:

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

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Treat symptomatically.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:

*Use extinguishing media for surrounding fire.
Extinguishing powder, sand.*

Unsuitable extinguishing media:

Do not use any water-containing extinguishing agents.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

In case of fire: formation of toxic gases, copper oxide.

5.3. Advice for Firefighters

Protective equipment:

*Wear self-contained respiratory protective device.
Wear suitable protective clothing.*

Further information:

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

*Avoid inhalation of dust.
Avoid formation of dust, wear protective clothing. Keep spectators away.*

6.2. Environmental Precautions

Environmental precautions:

Do not discharge into drains, surface or ground water in concentrated form.

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:

*Take up mechanically.
Dispose of contaminated material as waste according to section 13.*

6.4. Reference to other Sections

*For information for safe handling see Section 7.
Protective clothing, see Section 8.
See Section 13 for information on disposal.*

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

*Avoid formation and deposition of dust. Provide adequate ventilation.
Provide adequate ventilation.*

Hygienic measures:

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*Wash hands before breaks and after work.
Keep away from foodstuffs and drinks.*

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

*Store in tightly sealed containers in a dry and cool room.
Protect against humidity and water.*

Requirements for storage areas and containers:

Information on fire and explosion protection:

Do not store together with: oxidants and acidic products.

Storage class:

13; Non combustible solids (TRGS 510)

Further Information:

7.3. Specific End Use(s)

Further information:

No further information available.

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

Copper (CAS 7440-50-8), TWA: 0.01 mg/m³

Parameters to be controlled:

Copper (CAS 7440-50-8): 4 mg/m³ (A; short-term value); 1 mg/m³ (A; long-term value); 0.2 mg/m³ (CH; short-term value); 0.1 mg/m³ (CH; long-term value)

Derived No-Effect Level (DNEL):

Copper:

273 mg/kg bw/d (worker/consumer, skin contact, short-term exposure - systemic effects)

1 mg/m³ (worker/consumer, inhalation, short-term exposure - local effects)

137 mg/kg bw/d (worker/consumer, skin contact, long-term exposure - systemic effects)

41 µg/kg tg (consumer, swallowing, long-term exposure - systemic effects)

1 mg/m³ (worker/consumer, inhalation, long-term exposure - local effects)

Predicted No-Effect Concentration (PNEC):

Copper:

Fresh water: 7.8 µg/l

Sea water: 5,2 µg/l

Fresh water sediment: 87.1 mg Cu kg / dwt

Seawater sediment: 676 mg Cu kg / dwt

Sewage treatment system (STP): 230 µg/l

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Soil: 65 mg/kg

Additional Information:

8.2. Exposure Controls

Technical protective measures:

Provide adequate ventilation/exhaust system.

Personal Protection

General protective measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

Respiratory protection:

Dust mask.

Respiratory equipment required in case of insufficient ventilation, filter type P2.

Hand protection:

Protective gloves (EN 374)

Preventive skin protection is recommended. Wash hands after working with substance.

Protective glove material:

Nitrile rubber (NBR)

Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.

Eye protection:

Safety glasses (EN 166)

Body protection:

Protective clothing.

Environmental precautions:

Prevent from getting into the soil, surface water and sewage system.

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form: powder

Color: copper

Odor: odorless

Odor threshold:
not determined

pH-Value:
not applicable

Melting temperature: 1083°C

Boiling temperature: 2597°C

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Flash point:

not applicable

Evaporation rate:

not applicable

Flammability (solid, gas):

not flammable

Upper explosion limit:

not determined

Lower explosion limit:

not determined

Vapor pressure:

not applicable

Vapor density:

No information available.

Density:

8.96 g/cm³ (20°C)

Solubility in water:

insoluble

*Coefficient of variation (n-
Octanol/Water):*

not determined

Auto-ignition temperature:

not determined

Decomposition temperature:

not determined

Viscosity, dynamic:

not applicable

Explosive properties:

Product is not explosive; however, an explosive dust/air mixture can be formed.

Oxidizing properties:

not oxidizing

Bulk density:

not determined

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic:

Burning class:

Solvent content:

Solid content:

Particle size:

Other information:

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10. Stability and Reactivity

10.1. Reactivity

No information available.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

Reacts with acids, bases and oxidizing agents.

10.4. Conditions to Avoid

Conditions to avoid:

No decomposition if used according to specifications.

Thermal decomposition:

10.5. Incompatible Materials

No information available.

10.6. Hazardous Decomposition Products

None known.

10.7. Further Information

11. Toxicological Information

11.1. Information on Hazard Classes as defined in Regulation (EC) No. 1272/2008

No toxicity expected.

Acute Toxicity

LD50, oral:

No information available.

LD50, dermal:

No adverse effects expected.

LC50, inhalation:

Copper: > 5.11 mg/l (4h, rat; OECD 436)

Primary effects

Irritant effect on skin:

No irritant effect known.

Irritant effect on eyes:

No irritant effect known.

Inhalation:

No information available.

Ingestion:

Sensitization:

No sensitizing effects known.

Mutagenicity:

No mutagenic effects known.

Reproductive toxicity:

No reproductive toxicity expected.

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Carcinogenicity:

No cancerogenic effect known.

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

No negative effects.

Aspiration hazard

Not applicable

11.2. Information on other Hazards

No further information available.

12. Ecological Information

12.1. Aquatic Toxicity

Very toxic for aquatic organisms.

Harmful for aquatic organisms, with long-term adverse effects.

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

Fish toxicity:

Copper: LC50: 0.0384 mg/l (96h, Pimephales promelas; Read-across)

Daphnia toxicity:

No information available.

Bacteria toxicity:

No data available.

Algae toxicity:

No information available.

12.2. Persistency and Degradability

No information available.

12.3. Bioaccumulation

No information available.

12.4. Mobility

No information available.

12.5. Results of PBT- und vPvB Assessment

This product is neither a PBT or vPvB substance nor does it contain a PBT or vPvB substance.

12.6. Endocrine Disrupting Properties

No data available.

12.7. Other Adverse Effects

Water hazard class:

2 (German Regulation) (Assessment by list): hazardous.

Behaviour in sewage systems:

Further ecological effects:

Do not let product enter waterways or sewage system.

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AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

*Disposal in accordance with local regulations.
Must not be disposed together with household garbage.
Do not let product enter water systems.*

European Waste Code (EWC):

Uncleaned packaging:

Dispose of according to official local regulations.

Waste Code No.:

14. Transport Information

14.1. UN Number

ADR, IMDG, IATA 3077

14.2. UN Proper Shipping Name

ADR/RID: UMWELTGEFÄHRDENDER STOFF, FEST, N.A.G. (Kupfermetall, pulverförmig)

IMDG/IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper metal powder)

14.3. Transport Hazard Classes

ADR Class: 9

Hazard no.: 9

Classification code: M7

Tunnel restriction code: -

IMDG Class (sea): 9

Hazard no.: 9

EmS No.: F-A, S-F

IATA Class: 9

Hazard no.: 9

14.4. Packaging Group

ADR/RID: III

IMDG: III

IATA: III

14.5. Environmental Hazards

*Labelling according 5.2.1.8 ADR/RID: fish and tree
Labelling according 5.2.1.6.3 IMDG: fish and tree
Labelled with "P" according 2.10 IMDG: yes*

14.6. Special Precautions for User

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14.7. Maritime Transport in Bulk according to IMO Instruments

not applicable

14.8. Further Information

15. Regulatory Information

15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

2, hazardous for water (German Regulation)

Local regulations on chemical accidents:

Seveso-III Directive (2012/18/EU):

Environmentally hazardous (E1); Amount 1: 100 t; Amount 2: 200 t

Category E2: Environmentally hazardous: Amount 2: 200 t;

Amount 3: 500 t

Employment restrictions:

Restriction and prohibition of application:

Technical instructions on air quality:

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

15.3. Further Information

EC. REACH, Annex XIV, Candidate List of Substances of very High Concern (SVHC): not regulated / not applicable

Regulation (EC) 649/2012 concerning the export and import of dangerous chemicals: Not applicable

Regulation (EU) 2019/1021 - Persistent organic pollutants: not regulated / not applicable

Regulation (EC) 1005/2009 - Substances that Deplete the Ozone Layer: not regulated / not applicable

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.