

Safety Data Sheet

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



54881 Bronze Powder

Page 1

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

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

1.1. Product Identifier

Product Name: Bronze Powder

Article No.: 54881

UFI: --

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

Identified uses:

*Industrial application
Metal alloys, powder metallurgy*

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)*

H410 Chronic aquatic toxicity, hazard category 1
Very toxic to aquatic life with long lasting effects.

Cat.: 1

Possible Environmental Effects:

2.2. Label Elements

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

Hazard designation:



GHS09-1

Signal word:

Warning

Hazard designation:

H410 Very toxic to aquatic life with long lasting effects.

next page: 2

Safety Data Sheet

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



54881 Bronze Powder

Page 2

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

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 (H400-412); REACH Reg.No.: 01-2119480154-42-0076	> 49 %	CAS-Nr: 7440-50-8 EINECS-Nr: 231-159-6 EC-Nr:
---	--------	---

Tin	< 51 %	CAS-Nr: 7440-31-5 EINECS-Nr: 231-141-8 EC-Nr:
-----	--------	---

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:

Wash off with plenty of water and soap. Consult a physician if irritation persists.

After eye contact:

*Immediately flush open eyes with plenty of water.
Seek medical attention if irritation persists.*

After ingestion:

*Rinse mouth with plenty of water.
Immediately get medical help.*

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

Symptoms:

Cough, nausea, gastrointestinal complaints.

Effects:

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

Treatment:

next page: 3

Safety Data Sheet

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



54881 Bronze Powder

Page 3

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

Treat symptomatically.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:

*Special powder for metal fires (Class D), graphite
Dry sand.*

Unsuitable extinguishing media:

*Foam
Water*

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:

In case of fire: formation of toxic gases/vapors.

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 contact with skin, eyes and clothing. Do not ingest or inhale.
Keep away from sources of ignition. No smoking.
Wear protective clothing.
Avoid formation of dust.*

6.2. Environmental Precautions

Environmental precautions:

*Do not discharge into drains, surface or ground water in
concentrated form.
Contact local authorities if product pollutes soil or vegetation.*

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:

*Take up mechanically and collect in suitable labelled containers for
disposal.*

6.4. Reference to other Sections

See Section 13 for information on disposal.

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling:

*Provide adequate ventilation.
Avoid formation of dust.*

Hygienic measures:

Avoid contact with skin, eyes and clothing.

next page: 4

Safety Data Sheet

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



54881 Bronze Powder

Page 4

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

*Do not eat or drink during work. Do not smoke.
Wash hands at the end of work. Preventive skin protection recommended.*

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Store in tightly sealed containers in a cool and well ventilated location.

Protect product from humidity.

Protect against heat.

Requirements for storage areas and containers:

Store the product in the original container.

Information on fire and explosion protection:

Do not store together with ignitable sources, heat and fire.

Do not store together with: oxidants, acids, halogenated compounds.

Do not store together with acetylene.

Storage class:

Further Information:

7.3. Specific End Use(s)

Further information:

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

Copper (CAS 7440-50-8): TLV 1 mg/m³

Tin compounds, inorganic (as Sn): 2 mg/m³

Parameters to be controlled:

Copper (CAS 7440-50-8), OSHA (USA) 1 mg/m³

WEL TWA (UK): 0.2 mg/m³; STEL: 0.6 mg/m³ (calc.), 2 mg/m³ (dust and mist)

Tin (CAS 7440-31-5), MAK (A; CH): 4 mg/m³ (short-term value, inhalable fraction); 2 mg/m³ (long-term value, inhalable fraction)

Derived No-Effect Level (DNEL):

Predicted No-Effect Concentration (PNEC):

Additional Information:

8.2. Exposure Controls

Technical protective measures:

Provide adequate ventilation/exhaust system.

Personal Protection

General protective measures:

Avoid contact with skin, eyes and clothing.

next page: 5

Safety Data Sheet

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



54881 Bronze Powder

Page 5

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

Keep away from foodstuffs, beverages and feed.

Respiratory protection:

Required in case of insufficient ventilation.

Hand protection:

Protective gloves (EN 374)

Protective glove material:

Please note the manufacturers' detailed statements, especially about the minimum thickness and the minimum breakthrough time.

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: reddish-gold

Odor: odorless

Odor threshold:
not determined

pH-Value:
not applicable

Melting temperature: 750 - 1083°C

Boiling temperature:
not applicable

Flash point:
not applicable

Evaporation rate:
not applicable

Flammability (solid, gas):
non-combustible

Upper explosion limit:
no information available

Lower explosion limit:
no information available

Vapor pressure:
not applicable

Vapor density:

next page: 6

Safety Data Sheet

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



54881 Bronze Powder

Page 6

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

No information available.

Density: 2.2 - 4.2 g/cm³

Solubility in water: insoluble

Coefficient of variation (n-Octanol/Water):
not determined

Auto-ignition temperature:
not applicable

Decomposition temperature:
not determined

Viscosity, dynamic:
not applicable

Explosive properties:
not explosive

Oxidizing properties:
No oxidizing properties

Bulk density:

9.2. Further Information

Solubility in solvents:

Viscosity, kinematic:

Burning class:

Solvent content:

Solid content:

Particle size:

Other information:

10. Stability and Reactivity

10.1. Reactivity

Stable if used according to specifications.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

Exothermic reaction with halogenated compounds.

10.4. Conditions to Avoid

Conditions to avoid:

Avoid formation of dust.

Thermal decomposition:

10.5. Incompatible Materials

Oxidizing agents, halogenated compounds, acids, acetylene.

10.6. Hazardous Decomposition Products

next page: 7

Safety Data Sheet

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



54881 Bronze Powder

Page 7

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

Thermal decomposition may yield toxic or irritating gases.

10.7. Further Information

11. Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

LD50, oral:

Tin: LD50: > 2000 mg/kg (rat; OECD 423); 72 mg/kg (mouse)

LD50, dermal:

Tin: LD50: > 2000 mg/kg (rat; OECD 402)

LC50, inhalation:

No information available.

Primary effects

Irritant effect on skin:

No irritant effect known.

Irritant effect on eyes:

Product dust may cause irritation.

Inhalation:

No irritant effect known.

Ingestion:

No information available

Sensitization:

No sensitizing effects known.

Mutagenicity:

No mutagenic effects known.

Reproductive toxicity:

No negative effects known.

Carcinogenicity:

No cancerogenic effect known.

Teratogenicity:

No teratogenic effects expected.

Specific target organ toxicity (STOT):

No negative effects.

Additional toxicological information:

Aspiration hazard: not applicable

12. Ecological Information

12.1. Aquatic Toxicity

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

Fish toxicity:

Copper: LC50: 0.01 mg/l (C.Auratus); 0.55 mg/l (12h, Shell)

Tin: LC50: 0.42 mg/l (672h, Oncorhynchus mykiss); 12.4 µg/l (96h, next page.)

Safety Data Sheet

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



54881 Bronze Powder

Page 8

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

Pimephales promelas)

Daphnia toxicity:

Tin: EC50: 1.5 mg/l (504h, Daphnia magna)

Bacteria toxicity:

No data available.

Algae toxicity:

Tin: > 19.2 µg/l (72h, Pseudokirchneriella subcapitata)

12.2. Persistency and Degradability

Inorganic substance. Biological degradability is not affected.

12.3. Bioaccumulation

No bioaccumulation.

12.4. Mobility

No information available.

12.5. Results of PBT- und vPvP Assessment

The contents of the preparation do not comply with the criteria for the classification as PBT or vPvB.

12.6. Other Adverse Effects

Water hazard class:

Do not let product contaminate ground water, waterways or sewage system.

Behaviour in sewage systems:

Further ecological effects:

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

Dispose of according to official national and local regulations.

European Waste Code (EWC):

Uncleaned packaging:

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. (Kupfer)

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

14.3. Transport Hazard Classes

ADR Class: 9

Hazard no.: 9

next page: 9

Safety Data Sheet

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



54881 Bronze Powder

Page 9

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

	<i>Classification code:</i>	<i>M7</i>
	<i>Tunnel restriction code:</i>	<i>-</i>
	<i>IMDG Class (sea):</i>	<i>9</i>
	<i>Hazard no.:</i>	<i>9</i>
	<i>EmS No.:</i>	<i>F-A, S-F</i>
	<i>IATA Class:</i>	<i>9</i>
	<i>Hazard no.:</i>	<i>9</i>
14. 4.	Packaging Group	
	<i>ADR/RID:</i>	<i>III</i>
	<i>IMDG:</i>	<i>III</i>
	<i>IATA:</i>	<i>III</i>
14. 5.	Environmental Hazards	
		<i>Labelling according 5.2.1.8 ADR/RID: fish and tree</i>
		<i>Labelling according 5.2.1.6.3 IMDG: fish and tree</i>
		<i>Labelled with "P" according 2.10 IMDG: yes</i>
14. 6.	Special Precautions for User	
		<i>not applicable</i>
14. 7.	Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code	
		<i>not applicable</i>
14. 8.	Further Information	

15.	Regulatory Information	
15. 1.	Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture	
	<i>Water hazard class:</i>	<i>3, very hazardous for water (according to the German Regulation AwSV)</i>
	<i>Local regulations on chemical accidents:</i>	<i>Does not underlie the Accident Ordinance.</i>
	<i>Employment restrictions:</i>	
	<i>Restriction and prohibition of application:</i>	<i>EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: not applicable</i>
	<i>Technical instructions on air quality:</i>	
15. 2.	Chemical Safety Assessment	
		<i>No information available.</i>
15. 3.	Further Information	
		<i>EC. REACH, Annex XIV, Candidate List of Substances of very High Concern (SVHC): not regulated / not applicable</i>

16.	Other Information	
		<i>This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal</i>

Safety Data Sheet

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



54881 Bronze Powder

Page 10

Revised edition: 25.04.2018

Version: 3.0

Printed: 31.05.2022

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.