

# Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31 and 2020/878/  
EU

Printing date 08.07.2024

Version number 7 (replaces version 6)

Revision: 08.07.2024

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1 Product identifier****Trade name:** CuP281 (CP 104), B-Cu89PAg-645-815, CuRophos 5**UFI:** not applicable.**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**Application of the substance / the mixture** Hard solder**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Felder GmbH

Im Lipperfeld 11

D-46047 Oberhausen

Tel.: +49 (0)208/ 85035-0

Fax.: +49 (0)208/ 26080

http://www.felder.de

e-mail: info@felder.de

**Further information obtainable from:**

lab

(mo-thu. 8:00 a.m. - 4:00 p.m./ fr. 8:00 a.m. - 1:00 p.m.)

email: mprobst@felder.de

**1.4 Emergency telephone number:**

Not required as this product is not subject to labelling.

tel: +49 208 8503529

**EuPCS:** PC-TEC-24

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

The product is not classified, according to the CLP regulation.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008** Void**Hazard pictograms** Void**Signal word** Void**Hazard statements** Void**Additional information:**

Safety data sheet available on request.

**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures****Description:** Mixture: consisting of the following components.**Dangerous components:**

CAS: 7440-50-8 EINECS: 231-159-6 Index number: 029-024-00-X Reg.nr.: 01-2119480154-42	copper	Aquatic Chronic 2, H411	88.6-89.4%
CAS: 7440-22-4 EINECS: 231-131-3 Reg.nr.: 01-2119555669-21	silver	substance with a Community workplace exposure limit	4.8-5.2%

**further ingredients:**

phosphor

Reg.nr.: 01-2119448009-39

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information:** Take affected persons out into the fresh air.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:**

After contact with the molten product, cool rapidly with cold water.

Do not pull solidified product off the skin.

Seek medical treatment.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.**After swallowing:** If symptoms persist consult doctor.**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**5.2 Special hazards arising from the substance or mixture** No further relevant information available.

### 5.3 Advice for firefighters

**Protective equipment:** Do not inhale explosion gases or combustion gases.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:** Allow to solidify. Pick up mechanically.

### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Extractors are required on all machines used for thermal processing or splinter removal processes.

**Information about fire - and explosion protection:** No special measures required.

### 7.2 Conditions for safe storage, including any incompatibilities

**Storage:****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:** Store in dry conditions.**Storage class:** 13**7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Ingredients with limit values that require monitoring at the workplace:****7440-50-8 copper**

MAK (Germany)	Long-term value: 0.01 A mg/m <sup>3</sup> als Cu
WEL (Great Britain)	Short-term value: 2** mg/m <sup>3</sup> Long-term value: 0.2* 1** mg/m <sup>3</sup> *fume **dusts and mists (as Cu)
OEL (Ireland)	Long-term value: 0.2* 1** mg/m <sup>3</sup> *fume **dusts and mists

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<b>7440-22-4 silver</b>	
IOELV (EU)	Long-term value: 0.1 mg/m <sup>3</sup>
AGW (Germany)	Long-term value: 0.1 E mg/m <sup>3</sup> 8(II);DFG, EU
WEL (Great Britain)	Long-term value: 0.1 mg/m <sup>3</sup>
OEL (Ireland)	Long-term value: 0.1 mg/m <sup>3</sup> IOELV

**Regulatory information**

MAK (Germany): MAK- und BAT-Liste

WEL (Great Britain): EH40/2020

OEL (Ireland): 2024 CoP for the Safety, Health and Welfare at Work

AGW (Germany): TRGS 900

IOELV (EU): (EU) 2019/1831

**recommended monitoring procedures in accordance with 2020/878/EU no. 8.1.2:**

7440-50-8 copper: BIA 7755 (D), NIOSH 7301(E), MétroPol Fiche 003(F), MTA/MA-025/A92(ESP)

7440-22-4 silver: ISO 15202(F, E), BIA 8600(D), NIOSH 7301(E)

**Additional information:** The lists valid during the making were used as basis.**8.2 Exposure controls****Appropriate engineering controls**

Ensure adequate ventilation.

Remove the fumes by means of suitable suction devices.

**Appropriate engineering controls:**

Ensure adequate ventilation.

Remove the fumes by suitable suction devices.

**Individual protection measures, such as personal protective equipment****General protective and hygienic measures:** Avoid skin contact with the liquefied material.**Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P2

**Hand protection** Leather gloves**Penetration time of glove material** Value for the permeation: Level ≤ -**Eye/face protection** in cases of application: protective goggles**Body protection:** Protective work clothing

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties****General Information****Colour:** Copper coloured**Odour:** Odourless**Odour threshold:** Not determined.**Melting point/freezing point:** 645-815 °C**Boiling point or initial boiling point and boiling range** Undetermined.**Flammability** Not determined.**Lower and upper explosion limit****Lower:** Not determined.**Upper:** Not determined.**Flash point:** Not applicable.**Decomposition temperature:** Not determined.**pH** Not applicable.**Viscosity:****Kinematic viscosity** Not applicable.**Dynamic:** Not applicable.**Solubility****water:** Insoluble.**Partition coefficient n-octanol/water (log value)** Not determined.**Vapour pressure:** Not applicable.**Density and/or relative density****Density at 20 °C:** 8.6 g/cm<sup>3</sup>**Relative density** Not determined.**Vapour density** Not applicable.

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**Particle characteristics***See section 3.***9.2 Other information****Appearance:****Form:**

Solid

**Important information on protection of health and environment, and on safety.****Ignition temperature:***Product is not selfigniting.***Explosive properties:***Product does not present an explosion hazard.***Solvent content:****Organic solvents:**

0.0 %

**VOC (EC)**

0.00 %

**Change in condition****Evaporation rate***Not applicable.***Information with regard to physical hazard classes****Explosives**

Void

**Flammable gases**

Void

**Aerosols**

Void

**Oxidising gases**

Void

**Gases under pressure**

Void

**Flammable liquids**

Void

**Flammable solids**

Void

**Self-reactive substances and mixtures**

Void

**Pyrophoric liquids**

Void

**Pyrophoric solids**

Void

**Self-heating substances and mixtures**

Void

**Substances and mixtures, which emit flammable gases in contact with water**

Void

**Oxidising liquids**

Void

**Oxidising solids**

Void

**Organic peroxides**

Void

**Corrosive to metals**

Void

**Desensitised explosives**

Void

**SECTION 10: Stability and reactivity****10.1 Reactivity** *No further relevant information available.***10.2 Chemical stability****Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.***10.3 Possibility of hazardous reactions***No dangerous reactions known.**Reacts with strong acids and oxidising agents.***10.4 Conditions to avoid** *No further relevant information available.***10.5 Incompatible materials:** *No further relevant information available.***10.6 Hazardous decomposition products:** *No dangerous decomposition products known.***SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity** *Based on available data, the classification criteria are not met.***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 or 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.*

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**11.2 Information on other hazards****Endocrine disrupting properties***None of the ingredients is listed.***SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** *No further relevant information available.***chronic aquatic toxicity:** *Classification criteria Copper (029-024-00-X) Environmental hazard not fulfilled.***12.2 Persistence and degradability** *No further relevant information available.***12.3 Bioaccumulative potential** *No further relevant information available.***12.4 Mobility in soil** *No further relevant information available.***12.5 Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***12.6 Endocrine disrupting properties** *The product does not contain substances with endocrine disrupting properties.***12.7 Other adverse effects** *No further relevant information available.***Additional ecological information:****General notes:***The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary**Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water**Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.***SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation** *Contact manufacturer for recycling information.***European waste catalogue***17 04 07: mixed metals**inner packaging:**15 01 02: plastic packaging**overpack:**15 01 01: paper and cardboard packaging***Uncleaned packaging:****Recommendation:** *Disposal must be made according to official regulations.***SECTION 14: Transport information****14.1 UN number or ID number****ADR, ADN, IMDG, IATA***Void***14.2 UN proper shipping name****ADR, ADN, IMDG, IATA***Void***14.3 Transport hazard class(es)****ADR, ADN, IMDG, IATA****Class***Void***14.4 Packing group****ADR, IMDG, IATA***Void***14.5 Environmental hazards:****Marine pollutant:***No***14.6 Special precautions for user***Not applicable.***14.7 Maritime transport in bulk according to IMO****instruments***Not applicable.***UN "Model Regulation":***Void***SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Directive 2012/18/EU****Named dangerous substances - ANNEX I** *None of the ingredients is listed.*

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**REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)** *None of the ingredients are included.***DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II***None of the ingredients is listed.***REGULATION (EU) 2019/1148****Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))***None of the ingredients is listed.***Annex II - REPORTABLE EXPLOSIVES PRECURSORS***None of the ingredients is listed.***Regulation (EC) No 273/2004 on drug precursors***None of the ingredients is listed.***Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors***None of the ingredients is listed.***National regulations:****Information about limitation of use:** *Employment restrictions concerning juveniles must be observed.***Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

### SECTION 16: Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.***Reasons for changes:**

10/26/2015: Section 1, 8, 15 adaptation to VO 453/2010/EC, 830/2015/EU, 2012/18/EU

02/22/2017: section 8.1, 8.2

09/09/2018: section 13

02/02/2020: section 1, 3, 15, 16

05/16/2022: section 15

07/08/2024: section 1, 12

**Information referred to in Annex I, point 1.3.4.2 of Regulation 1272/2008/EC:****Relevant phrases***H411 Toxic to aquatic life with long lasting effects.***Contact:** *Dr. M. Probst***Version number of previous version:** 6**Abbreviations and acronyms:***RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2***Safety data sheet SD2020**

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