

Safety data sheet
according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 27.03.2023

Version number 7 (replaces version 6)

Revision: 27.03.2023

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

1.1 Product identifier**Trade name:** Cu-Fe-P**UFI:** 25D8-S06E-Q00Y-4CXA**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** Soldering flux**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:***24 hr. emergency information:**Poison emergency call Berlin**"Giftnotruf Berlin"*

Tel.: 0049-30-30686 790

EuPCs: PC-TEC-24

SECTION 2: Hazards identification

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

GHS08 health hazard

*Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.***2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008***The product is classified and labelled according to the CLP regulation.***Hazard pictograms**

GHS08

Signal word *Warning***Hazard-determining components of labelling:***potassium pentaborate - hydrat***Hazard statements***H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.***Precautionary statements***P102 Keep out of reach of children.**P201 Obtain special instructions before use.**P202 Do not handle until all safety precautions have been read and understood.**P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**P308+P313 IF exposed or concerned: Get medical advice/attention.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.

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vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture: consisting of the following components.

Dangerous components:		
CAS: 12229-13-9	potassium pentaborate - hydrat	<50%
EINECS: 234-371-7	Repr. 2, H361fd	
Reg.nr.: 01-2119970729-20	Specific concentration limit: Repr. 2; H361fd: C ≥ 5.2 %	

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Take affected persons out into the fresh air.

After inhalation: In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Seek medical treatment.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

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: CO₂, powder or water spray. Fight larger fires with water spray.

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device.

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Ensure adequate ventilation

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

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

Ensure that suitable extractors are available on processing machines

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

Prevent formation of dust.

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

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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.**Keep container tightly sealed.***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:***The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.***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.***Individual protection measures, such as personal protective equipment****General protective and hygienic measures:***Keep away from foodstuffs, beverages and feed.**Immediately remove all soiled and contaminated clothing**Wash hands before breaks and at the end of work.**Avoid contact with the eyes and skin.***Respiratory protection:***Use suitable respiratory protective device in case of insufficient ventilation.**Filter B**Filter P2***Hand protection****Protective gloves***Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation***Material of gloves***Nitrile rubber, NBR**The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.**Recommended thickness of the material: ≥ 0.4 mm***Penetration time of glove material***The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.**The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions.**Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.**Value for the permeation: Level ≤ 6* **As protection from splashes gloves made of the following materials are suitable:** Nitrile rubber, NBR**Eye/face protection****Tightly sealed goggles****Body protection:** Protective work clothing**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Colour:***White***Odour:***Odourless***Odour threshold:***Not determined.*

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Melting point/freezing point:	ca.500 °C
Boiling point or initial boiling point and boiling range	<i>Undetermined.</i>
Flammability	<i>Not determined.</i>
Lower and upper explosion limit	
Lower:	<i>Not determined.</i>
Upper:	<i>Not determined.</i>
Flash point:	<i>Not applicable.</i>
Decomposition temperature:	<i>Not determined.</i>
pH	<i>Not applicable.</i>
Viscosity:	
Kinematic viscosity	<i>Not applicable.</i>
Dynamic:	<i>Not applicable.</i>
Solubility	
water:	<i>Insoluble.</i>
Partition coefficient n-octanol/water (log value)	<i>Not determined.</i>
Vapour pressure:	<i>Not applicable.</i>
Density and/or relative density	
Density at 20 °C:	<i>1.39 g/cm³</i>
Relative density	<i>Not determined.</i>
Vapour density	<i>Not applicable.</i>
Particle characteristics	<i>See item 3.</i>

9.2 Other information

Appearance:	<i>Powder</i>
Form:	
Important information on protection of health and environment, and on safety.	
Ignition temperature:	<i>Product is not selfigniting.</i>
Explosive properties:	<i>Product does not present an explosion hazard.</i>
Solvent content:	
Organic solvents:	<i>0.0 %</i>
VOC (EC)	<i>0.0 %</i>
0.00 %	
Solids content:	<i>100.0 %</i>
Change in condition	
Evaporation rate	<i>Not applicable.</i>
Information with regard to physical hazard classes	
Explosives	<i>Void</i>
Flammable gases	<i>Void</i>
Aerosols	<i>Void</i>
Oxidising gases	<i>Void</i>
Gases under pressure	<i>Void</i>
Flammable liquids	<i>Void</i>
Flammable solids	<i>Void</i>
Self-reactive substances and mixtures	<i>Void</i>
Pyrophoric liquids	<i>Void</i>
Pyrophoric solids	<i>Void</i>
Self-heating substances and mixtures	<i>Void</i>
Substances and mixtures, which emit flammable gases in contact with water	<i>Void</i>
Oxidising liquids	<i>Void</i>
Oxidising solids	<i>Void</i>
Organic peroxides	<i>Void</i>
Corrosive to metals	<i>Void</i>
Desensitised explosives	<i>Void</i>

SECTION 10: Stability and reactivity**10.1 Reactivity** *No further relevant information available.***10.2 Chemical stability****Thermal decomposition / conditions to be avoided:** *Stable up to melting point.***10.3 Possibility of hazardous reactions** *Reacts with strong acids.***10.4 Conditions to avoid** *No further relevant information available.*

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10.5 Incompatible materials: No further relevant information available.**10.6 Hazardous decomposition products:** Irritant gases/vapours

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

Suspected of damaging fertility. Suspected of damaging the unborn child.

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

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

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

Additional ecological information:

General notes:

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

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

06 03 14: solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

HP 10: Toxic for reproduction

cleaned sales packaging:

15 01 02: plastic packaging

overpack:

15 01 01: paper and cardboard packaging

Uncleaned packaging: 15 01 10*: packaging containing residues of or contaminated by hazardous substances

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

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

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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.***REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)** *None of the ingredients are listed.***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:**

05.08.2015: adaption to Regulation 453/2010/EC

15.09.2016: adaption to Regulation 830/2015/EU, 2012/18/EU, chapter 8

27.04.2018: chapter 13

30.03.2020: chapter 1

24.03.2021: chapter 1, 3, 15, 16

27.03.2023: chapter 11, 12, 15

Information referred to in Annex I, point 1.3.4.2 of Regulation 1272/2008/EC:**Relevant phrases**

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

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)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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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*

Repr. 2: *Reproductive toxicity – Category 2*

Safety data sheet SD3030

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