

Safety data sheet

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

Printing date 10.06.2025

Version number 5 (replaces version 4)

Revision: 10.06.2025

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

1.1 Product identifierTrade name: **Universal brazing powder**

UFI: C8S9-U0PQ-G00D-6RFQ

**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-hour emergency information:

Giftnotruf Berlin, counselling in German and English

Phone: (030) 30686 700

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***P101 If medical advice is needed, have product container or label at hand.**P102 Keep out of reach of children.**P103 Read carefully and follow all instructions.**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 EINECS: 234-371-7 Reg.nr.: 01-2119970729-20	potassium pentaborate - hydrat	 Repr. 2, H361fd	50-100%
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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 of danger area and lay down.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

Take affected persons into fresh air and keep quiet.

After skin contact:

Generally the product does not irritate the skin.

Wash with water and acidic soap.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing:

Rinse out mouth and then drink plenty of water.

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: Use fire extinguishing methods suitable to surrounding conditions.

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

5.3 Advice for firefighters

Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Avoid formation of dust.

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.

Dispose contaminated material as waste according to section 13.

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 Open and handle receptacle with care.

Information about fire - and explosion protection: Keep respiratory protective device available.

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: Not required.

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Further information about storage 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.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

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

Natural rubber, NR

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: ≥ 0.2 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*

Eyeface protection

Not required.

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

Odour:

Characteristic

Odour threshold:

Not determined.

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.

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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:	1.56 g/cm ³
Relative density	<i>Not determined.</i>
Vapour density	<i>Not applicable.</i>
Particle characteristics	<i>See section 3.</i>
9.2 Other information	
Appearance:	
Form:	<i>Solid</i>
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:	
Solids content:	100.0 %
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: *No decomposition if used according to specifications.*
- 10.3 Possibility of hazardous reactions** *No dangerous reactions known.*
- 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.*

LD/LC50 values relevant for classification:

12229-13-9 potassium pentaborate - hydrat

Oral	LD50	3,690 mg/kg (rat) (OECD 401)
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Dermal	LD50	>2,000 mg/kg (rabbit) (U.S. EPA FIFRA)
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Primary irritant effect:**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 plastic can:

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

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class

Void

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14.4 Packing group	Void
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Not applicable.
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 included.*

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

<i>None of the ingredients is listed.</i>

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

<i>None of the ingredients is listed.</i>

Annex II - REPORTABLE EXPLOSIVES PRECURSORS
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<i>None of the ingredients is listed.</i>

Regulation (EC) No 273/2004 on drug precursors

<i>None of the ingredients is listed.</i>

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

<i>None of the ingredients is listed.</i>

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:

28.03.2021: section 1, 3, 15, 16

22.12.2022: section 11

06.04.2023: section 1, 15

10.06.2025: section 1, 3, 11

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: 4

Abbreviations and acronyms:

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)*LC50: *Lethal concentration, 50 percent*LD50: *Lethal dose, 50 percent*PBT: *Persistent, Bioaccumulative and Toxic*vPvB: *very Persistent and very Bioaccumulative*ATE: *Acute toxicity estimate values*

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Repr. 2: Reproductive toxicity – Category 2

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