

# Safety data sheet

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

Printing date 04.06.2025

Version number 8 (replaces version 7)

Revision: 22.05.2025

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

**1.1 Product identifier**

Trade name: **Brass brazing alloy "G", Cu670, flux-filled**  
**CU 303, B-Cu60Zn(Si)(Mn), (L-CuZn40)**

UFI: CMK5-K0F9-0004-C8J9

**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**

Flux

Brazing alloy

**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

FELDER GMBH  
Im Lipperfeld 11  
D-46047 Oberhausen

Tel.: 0208/8 50 35-0

Fax.: 0208/2 60 80

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**

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.

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**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.

<b>Dangerous components:</b>		
CAS: 7440-50-8 EINECS: 231-159-6 Index number: 029-024-00-X Reg.nr.: 01-2119480154-42	copper ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	50-100%
CAS: 7440-66-6 EINECS: 231-175-3 Index number: 030-001-01-9 Reg.nr.: 01-2119467174-37	zinc substance with a Community workplace exposure limit	<50%
CAS: 12229-13-9 EINECS: 234-371-7 Reg.nr.: 01-2119970729-20	potassium pentaborate - hydrat ⚠ Repr. 2, H361fd	<10%
CAS: 10043-35-3 EINECS: 233-139-2 Index number: 005-007-00-2 Reg.nr.: 01-2119486683-25	boric acid ⚠ Repr. 1B, H360FD	<0.3%
<b>SVHC</b>		
10043-35-3	boric acid	

**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:** 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:**

Rinse out mouth and then drink plenty of water.

Seek medical treatment.

**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.

Mouth respiratory protective device.

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## 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** *Ensure that suitable extractors are available on processing machines*

**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

WES (Australia) Long-term value: 1\* 0.2\*\* mg/m<sup>3</sup>  
\*dust & mists (as Cu) \*\*fume

AGW (Germany) Long-term value: 0.045 (A) 0.200 (E) mg/m<sup>3</sup>  
8 (II) (A) 4 (II) (E); AGS, 10, 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

#### 7440-66-6 zinc

MAK (Germany) Long-term value: 0.1A\* 2E\*\* mg/m<sup>3</sup>  
\*alveolengängig; \*\*einateubar

#### 10043-35-3 boric acid

AGW (Germany) Long-term value: 0.5\* mg/m<sup>3</sup>  
2(I); \*einateubar; AGS, Y, 10

OEL (Ireland) Long-term value: 2 mg/m<sup>3</sup>  
Repr. 1B

### Regulatory information

WES (Australia): Workplace exposure standards for airborne contaminants

AGW (Germany): TRGS 900

WEL (Great Britain): EH40/2020

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

MAK (Germany): MAK- und BAT-Liste

**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)

7440-66-6 zinc: NIOSH 7300, 7301, 7303(E), OSHA ID 121(E)

**Additional information:** *The lists valid during the making were used as basis.*

### 8.2 Exposure controls

**Appropriate engineering controls** *No further data; see section 7.*

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**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:***Do not eat, drink, smoke or sniff while working.**Wash hands before breaks and at the end of work.***Respiratory protection:***Use suitable respiratory protective device in case of insufficient ventilation.**Filter B**Filter P2***Hand protection***Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation***Material of gloves***Nitrile rubber, NBR**Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation**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:  $\geq 0.4$  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  $\leq 4$* **Eyeface protection** *Safety glasses***Body protection:** *Protective work clothing*

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties****General Information**

<b>Colour:</b>	<i>Gold coloured</i>
<b>Odour:</b>	<i>Odourless</i>
<b>Odour threshold:</b>	<i>Not determined.</i>
<b>Melting point/freezing point:</b>	<i>870-900(Metall) °C</i>
<b>Boiling point or initial boiling point and boiling range</b>	<i>Undetermined.</i>
<b>Flammability</b>	<i>Not determined.</i>
<b>Lower and upper explosion limit</b>	
<b>Lower:</b>	<i>Not determined.</i>
<b>Upper:</b>	<i>Not determined.</i>
<b>Flash point:</b>	<i>Not applicable.</i>
<b>Decomposition temperature:</b>	<i>Not determined.</i>
<b>pH</b>	<i>Not applicable.</i>
<b>Viscosity:</b>	
<b>Kinematic viscosity</b>	<i>Not applicable.</i>
<b>Dynamic:</b>	<i>Not applicable.</i>
<b>Solubility</b>	
<b>water:</b>	<i>Insoluble.</i>
<b>Partition coefficient n-octanol/water (log value)</b>	<i>Not determined.</i>
<b>Vapour pressure:</b>	<i>Not applicable.</i>
<b>Density and/or relative density</b>	
<b>Density at 20 °C:</b>	<i>7.53 g/cm<sup>3</sup></i>
<b>Relative density</b>	<i>Not determined.</i>
<b>Vapour density</b>	<i>Not applicable.</i>
<b>Particle characteristics</b>	<i>See section 3.</i>

**9.2 Other information****Appearance:****Form:** *Solid*

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## 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 %
Solids content:	100.0 %
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 and stored according to specifications.
- 10.3 Possibility of hazardous reactions** Reacts with acids, alkalis 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.

**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.

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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 conditions Copper (029-024-00-X) Environmental hazard not fulfilled.

Classification conditions Copper (029-026-00-0) specific surface area < 0,67 mm<sup>2</sup>/mg.**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:**

The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods****Recommendation** Contact manufacturer for recycling information.**European waste catalogue**

17 04 07: mixed metals

HP10: Toxic for reproduction

**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

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## 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**

*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 2 (Self-assessment): hazardous for water.*

#### Other regulations, limitations and prohibitive regulations

**Substances of very high concern (SVHC) according to REACH, Article 57**

10043-35-3 | *boric acid*

**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:

21.09.2015: *adaption to Regulation 453/2010/ECG, 830/2015/EU, 18/2012/EU*

16.09.2016: *chapter 8.2, chapter 13*

16.04.2019: *chapter 3, 13*

04.09.2019: *chapter 1 UFI*

23.04.2020: *chapter 1*

08.03.2023: *chapter 1, 3, 11, 12, 15, 16*

22.05.2025: *chapter 1, 3, 8, 12, 16*

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

#### Relevant phrases

H360FD *May damage fertility. May damage the unborn child.*

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

H400 *Very toxic to aquatic life.*

H410 *Very toxic to aquatic life with long lasting effects.*

**Contact:** *Dr. M. Probst*

**Version number of previous version:** 7

#### 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)*

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*

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*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**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Repr. 1B: Reproductive toxicity – Category 1B**Repr. 2: Reproductive toxicity – Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1***Safety data sheet SD2022**

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