

Safety data sheet
according to 1907/2006/EC, Article 31 and 453/2010/EC

Printing date 11.09.2017

Version number 3

Revision: 08.06.2017

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

1.1 Product identifier

Trade name: AG 206, B-Cu44ZnAg(Si) 690/810 (L-Ag20)



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 necessary, due to the fact that the product does not need to be labelled.

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

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Mixture: consisting of the following components.

Dangerous components:

CAS: 7440-50-8 EINECS: 231-159-6 Reg.nr.: 01-2119480154-42	copper	substance with a Community workplace exposure limit	<45%
CAS: 7440-66-6 EINECS: 231-175-3 Reg.nr.: 01-2119467174-37	zinc	substance with a Community workplace exposure limit	<36%
CAS: 7440-22-4 EINECS: 231-131-3 Reg.nr.: 01-2119555669-21	silver	substance with a Community workplace exposure limit	<21%

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.

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*Generally the product does not irritate the skin.***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:*CO₂, 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: *No special measures required.*

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:

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

*No special measures required.***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

Additional information about design of technical facilities: *No further data; see item 7.*

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 ³ Ceiling limit: 2(II) C mg/m ³ als Cu
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7440-66-6 zinc

MAK (Germany)	Long-term value: 0.1 A* 2E** mg/m ³ *alveolengängig; **einatembar
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7440-22-4 silver

IOELV (EU)	Long-term value: 0.1 mg/m ³
AGW (Germany)	Long-term value: 0.1 E mg/m ³ 8(II); DFG, EU

Regulatory information

MAK (Germany): MAK- und BAT-Liste**IOELV (EU):** (EU) 2017/164**AGW (Germany):** TRGS 900

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recommended monitoring procedures in accordance with 453/2010/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)

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.***Personal protective equipment:****General protective and hygienic measures:***The usual precautionary measures are to be adhered to when handling chemicals.***Respiratory protection:***Use suitable respiratory protective device in case of insufficient ventilation.**Filter P2***Protection of hands:***Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation***Penetration time of glove material** Value for the permeation: Level \leq nicht erforderlich**Eye 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****Appearance:**

Form:	Solid
Colour:	Gold coloured
Odour:	Odourless
Odour threshold:	Not determined.
pH-value:	Not applicable.

Change in condition

Melting point/freezing point:	690-810°C
Initial boiling point and boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gas):	Not determined.

Ignition temperature:

Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not applicable.
Density at 20°C:	8,7g/cm ³
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.

Solubility in / Miscibility with water:

Insoluble.

Partition coefficient: n-octanol/water:

Not determined.

Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.

Solvent content:

Organic solvents:	0,0%
VOC (EC)	0,00 %
Solids content:	100,0%

9.2 Other information

No further relevant information available.

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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 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 toxicological effects

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.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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.

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.

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.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation Contact manufacturer for recycling information.

European waste catalogue

17 04 07 | mixed metals

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-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	
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	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.

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:

25.08.2015: adaption to Regulation 453/2010/EG, 830/2015/EU, 2012/18/EU

08.06.2017: chapter 8.2

Contact: Dr. M. Probst

Abbreviations and acronyms:

ADR: Accord européen sur le transport 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

* Data compared to the previous version altered.

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