

# Safety data sheet

## according to 1907/2006/EC, Article 31 and 453/2010/EC

Printing date 17.10.2019

Version number 7

Revision: 17.10.2019

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

**1.1 Product identifier**

Trade name: ISO-CORE "CLEAR", bleifrei (lead-free)

Sn100Ni+, Sn100-403C, Sn99Ag+,  
 Sn98Ag+, Sn96Ag+, Sn95Ag+  
 Sn97Ag3, Sn96Ag4 (Sn96,5Ag3,5), Sn95Ag5  
 Sn97Cu3, Sn99Cu1 (Sn99,3Cu0,7),  
 Sn96Ag3Cu1 (Sn96,5Ag3Cu0,5),  
 Sn95Ag4Cu1 (Sn95,5Ag3,8Cu0,7)

**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**

Brazing alloy

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](mailto: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](mailto:mprobst@felder.de)**1.4 Emergency telephone number: Tel: +49 (0)208 8503529**

### 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: 7440-31-5 EINECS: 231-141-8 Reg.nr.: 01-2119486474-28	tin	substance with a Community workplace exposure limit	50-100%
CAS: 7440-22-4 EINECS: 231-131-3 Reg.nr.: 01-2119555669-21	silver	substance with a Community workplace exposure limit	<5%
CAS: 7440-50-8 EINECS: 231-159-6 Reg.nr.: 01-2119480154-42	copper	substance with a Community workplace exposure limit	<5%

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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 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:** Call a doctor immediately.**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:** 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:** 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

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

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**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****7440-31-5 tin**

MAK (Germany) | vgl. Abschn. IIb

**7440-22-4 silver**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**7440-50-8 copper**MAK (Germany) | Long-term value: 0.01 A mg/m<sup>3</sup>  
als Cu**Regulatory information**

MAK (Germany): MAK- und BAT-Liste

IOELV (EU): (EU) 2017/164

AGW (Germany): TRGS 900

**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)

7440-22-4 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.

Ensure adequate ventilation.

Remove the soldering fumes by suitable suction devices.

**Personal protective equipment:****General protective and hygienic measures:** Do not eat, drink, smoke or sniff while working.**Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P2

**Protection of hands:** Heat resistant gloves**Penetration time of glove material** Value for the permeation: Level ≤ -**Eye 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****Appearance:****Form:**

Solid

**Colour:**

Silver grey

**Odour:**

Characteristic

**Odour threshold:**

Not determined.

**pH-value:**

Not applicable.

**Change in condition****Melting point/freezing point:**

Not applicable

**Initial boiling point and boiling range:**

Not applicable

**Flash point:**

Not applicable.

**Flammability (solid, gas):**

Not determined.

**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.

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Upper:	Not determined.
Vapour pressure:	Not applicable.
Density:	Not applicable.
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.

## 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: Possible in traces.

## 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:

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.

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**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

spool:

15 01 02: plastic packaging

overpack:

15 01 01: paper and cardboard packaging

**Uncleaned packaging:** void.**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

**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:**

31.08.2015: matching section 1, 8, 15 to Regulations 453/2010/EC, 830/2015/EU, 2012/18/EU

17.09.2015: addition section 8.2.1

25.02.2016: section 1: Sn100C

28.08.2016: section 1: Sn95Ag5

05.04.2018: section 13

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**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

**Safety data sheet SD3128**

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