

# Safety data sheet

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

Printing date 01.04.2021

Version number 6

Revision: 01.04.2021

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

**1.1 Product identifier**

Trade name: **ISO-Core "EL", bleifrei**  
**ISO-Core "EL" leadfree**  
**Sn97Ag3, Sn96Ag4 (Sn96,5Ag3,5), Sn95Ag5**  
**Sn97Cu3, Sn99Cu1 (Sn99,3Cu0,7),**  
**Sn96Ag3Cu1 (Sn96,5Ag3Cu0,5),**  
**Sn95Ag4Cu1 (Sn95,5Ag3,8Cu0,7)**



UFI: not necessary.

**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

**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.

EuPCS: PC-TEC-24

## 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**Additional information:**

Contains Rosin. May produce an allergic reaction.

Safety data sheet available on request.

**Information concerning particular hazards for human and environment:**

Rosin: Caution: exposure to this material may cause certain sensitive individuals to develop eczema and/or asthma. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

**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.**Dangerous components:**

CAS: 7440-31-5	tin	substance with a Community workplace exposure limit	50-100%
EINECS: 231-141-8			
Reg.nr.: 01-2119486474-28			

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CAS: 7440-22-4 EINECS: 231-131-3 Reg.nr.: 01-2119555669-21	silver	substance with a Community workplace exposure limit	0-<5%
CAS: 7440-50-8 EINECS: 231-159-6 Index number: 029-024-00-X Reg.nr.: 01-2119480154-42	copper	⚠ Aquatic Chronic 2, H411	0-<3%
CAS: 8050-09-7 EINECS: 232-475-7 Index number: 650-015-00-7 Reg.nr.: 01-2119480418-32	Rosin	⚠ Skin Sens. 1, H317	<1%

**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.

No special measures required.

**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.

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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.

**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:	
<b>7440-31-5 tin</b>	
MAK (Germany)	vgl. Abschn. IIb
<b>7440-22-4 silver</b>	
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
<b>7440-50-8 copper</b>	
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) 2019/1831

AGW (Germany): TRGS 900

### 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)

7440-22-4 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** No further data; see item 7.

#### 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.

#### Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P2

#### Hand protection

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### Material of gloves

Natural rubber, NR

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:  $\geq 0.22$  mm

#### Penetration time of glove material

Value for the permeation: Level  $\leq 6$

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.

**Eyeface protection** in cases of application: protective goggles

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Body protection: *Protective work clothing*

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

Colour:	<i>Silver grey</i>
Odour:	<i>Odourless</i>
Odour threshold:	<i>Not determined.</i>
Melting point/freezing point:	<i>217-221 °C</i>
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>
Auto-ignition temperature:	<i>Product is not selfigniting.</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:	<i>Not determined.</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:	
Form:	<i>Solid</i>
Important information on protection of health and environment, and on safety.	
Explosive properties:	<i>Product does not present an explosion hazard.</i>
Solvent content:	
Organic solvents:	<i>0.0 %</i>
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>

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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:** *Possible in traces.*

## 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** *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.*
- 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** *For information on endocrine disrupting properties see section 11.*
- 12.7 Other adverse effects**
- Additional ecological information:**  
**General notes:**  
*Avoid transfer into the environment.*  
*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** *Contact manufacturer for recycling information.*  
**European waste catalogue**  
 17 04 07: mixed metals

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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

<b>14.1 UN number or ID number</b>	
ADR, ADN, IMDG, IATA	Void
<b>14.2 UN proper shipping name</b>	
ADR, ADN, IMDG, IATA	Void
<b>14.3 Transport hazard class(es)</b>	
ADR, ADN, IMDG, IATA	
Class	Void
<b>14.4 Packing group</b>	
ADR, IMDG, IATA	Void
<b>14.5 Environmental hazards:</b>	
Marine pollutant:	No
<b>14.6 Special precautions for user</b>	Not applicable.
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
<b>UN "Model Regulation":</b>	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.*

<b>DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II</b>
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<i>None of the ingredients is listed.</i>
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REGULATION (EU) 2019/1148

<b>Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))</b>
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<i>None of the ingredients is listed.</i>
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<b>Annex II - REPORTABLE EXPLOSIVES PRECURSORS</b>
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<i>None of the ingredients is listed.</i>
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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:

03.09.2015: adaption to regulation 453/2010/EG, 830/2015/EU, 18/2012/EU

22.03.2017: chapter 1

13.09.2018: chapter 13

17.08.2020: chapter 1, 3

01.04.2021: chapter 15, 16

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**Information referred to in Annex I, point 1.3.4.2 of Regulation 1272/2008/EC:****Relevant phrases***H317 May cause an allergic skin reaction.**H411 Toxic to aquatic life with long lasting effects.***Contact:** Dr. M. Probst**Version number of previous version:** 5**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)**ICAO: International Civil Aviation Organisation**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)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Skin Sens. 1: Skin sensitisation – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2***Safety data sheet SD3145**

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