

Safety data sheet

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

Printing date 11.02.2021

Version number 4

Revision: 11.02.2021

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

1.1 Product identifier

Trade name: ISO-Core "ELR", bleifrei NiGe
Sn100Ni+, Sn100-403C,
Sn99Ag+, Sn98Ag+,
Sn96Ag+, Sn95Ag+

**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.

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 EINECS: 231-141-8 Reg.nr.: 01-2119486474-28	tin substance with a Community workplace exposure limit	95-99%
CAS: 7440-22-4 EINECS: 231-131-3 Reg.nr.: 01-2119555669-21	silver substance with a Community workplace exposure limit	<5%

(Contd. on page 2)

— EU —

Safety data sheet

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

Printing date 11.02.2021

Version number 4

Revision: 11.02.2021

Trade name: ISO-Core "ELR", bleifrei NiGe
Sn100Ni+, **Sn100-403C**,
Sn99Ag+, **Sn98Ag+**,
Sn96Ag+, **Sn95Ag+**

(Contd. of page 1)		
CAS: 7440-50-8 EINECS: 231-159-6 Index number: 029-024-00-X Reg.nr.: 01-2119480154-42	copper ⚠ Aquatic Chronic 2, H411	<1%
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%
CAS: 7440-02-0 EINECS: 231-111-4 Index number: 028-002-00-7 Reg.nr.: 01-2119438727-29	nickel (massive) ⚠ Carc. 2, H351; STOT RE 1, H372; ⚠ Skin Sens. 1, H317	<0.065%
CAS: 7440-56-4 EINECS: 231-164-3 Reg.nr.: 01-2120761271-61	germanium ⚠ Repr. 2, H361; STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411	<0.012%

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.

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:

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: No special measures required.

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.

(Contd. on page 3)

EU

Safety data sheet

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

Printing date 11.02.2021

Version number 4

Revision: 11.02.2021

Trade name: ISO-Core "ELR", bleifrei NiGe
 Sn100Ni+, Sn100-403C,
 Sn99Ag+, Sn98Ag+,
 Sn96Ag+, Sn95Ag+

(Contd. of page 2)

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:

7440-31-5 tin

MAK (Germany)	vgl. Abschn. IIb
---------------	------------------

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
WEL (Great Britain)	Long-term value: 0.1 mg/m ³

8050-09-7 Rosin

MAK (Germany)	vgl. Abschn. IV
WEL (Great Britain)	Short-term value: 0.15 mg/m ³ Long-term value: 0.05 mg/m ³ Sen

Regulatory information

MAK (Germany): MAK- und BAT-Liste

IOELV (EU): (EU) 2019/1831

AGW (Germany): TRGS 900

WEL (Great Britain): EH40/2020

recommended monitoring procedures in accordance with 453/2010/EU no. 8.1.2:

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: ≥ 0.11 mm

Penetration time of glove material

Value for the permeation: Level ≤ 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.

(Contd. on page 4)

Safety data sheet

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

Printing date 11.02.2021

Version number 4

Revision: 11.02.2021

Trade name: ISO-Core "ELR", bleifrei NiGe
 Sn100Ni+, Sn100-403C,
 Sn99Ag+, Sn98Ag+,
 Sn96Ag+, Sn95Ag+

(Contd. of page 3)

As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Natural rubber, NR

Eye/face 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

Colour:	Silver grey
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	Not applicable
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.
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined.
pH	Not applicable.
Viscosity:	
Kinematic viscosity	Not applicable.
Dynamic:	Not applicable.
Solubility	
water:	Insoluble.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not applicable.
Density and/or relative density	
Density:	Not applicable
Relative density	Not determined.
Vapour density	Not applicable.
Particle characteristics	See item 3.

9.2 Other information

Appearance:	
Form:	Solid
Important information on protection of health and environment, and on safety.	
Explosive properties:	Product does not present an explosion hazard.
Solvent content:	
Organic solvents:	0.0 %
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

(Contd. on page 5)

Safety data sheet

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

Printing date 11.02.2021

Version number 4

Revision: 11.02.2021

Trade name: ISO-Core "ELR", bleifrei NiGe
 Sn100Ni+, Sn100-403C,
 Sn99Ag+, Sn98Ag+,
 Sn96Ag+, Sn95Ag+

(Contd. of page 4)

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 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:
The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary
Avoid transfer into the environment.
Not hazardous for water.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods**
Recommendation *Contact manufacturer for recycling information.*
European waste catalogue
17 04 07: mixed metals

spool:

(Contd. on page 6)

Safety data sheet

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

Printing date 11.02.2021

Version number 4

Revision: 11.02.2021

Trade name: ISO-Core "ELR", bleifrei NiGe
 Sn100Ni+, Sn100-403C,
 Sn99Ag+, Sn98Ag+,
 Sn96Ag+, Sn95Ag+

(Contd. of page 5)

15 01 02: plastic packaging

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

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.

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.

National regulations:

Information about limitation of use: Employment restrictions concerning juveniles must be observed.

Waterhazard class: Generally not 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:

23.06.2017: adaption to Regulation 453/2010/EC, 830/2015/EU, 2012/18/EU
 section 8.1

29.04.2019: section 3, 8, 13, 15

11.02.2021: section 1, 3, 15, 16

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.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Contact: Dr. M. Probst

Version number of previous version: 3

(Contd. on page 7)

— EU —

Safety data sheet

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

Printing date 11.02.2021

Version number 4

Revision: 11.02.2021

Trade name: ISO-Core "ELR", bleifrei NiGe
Sn100Ni+, Sn100-403C,
Sn99Ag+, Sn98Ag+,
Sn96Ag+, Sn95Ag+

(Contd. of page 6)

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

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

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Safety data sheet SD3122

— EU —