

Safety data sheet

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

Printing date 04.06.2025

Version number 6 (replaces version 5)

Revision: 14.05.2025

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

1.1 Product identifier

Trade name: **ISO-CORE "AL" SnCu,
Sn97Cu3; Sn99,3Cu0,7**

**UFI:**

Sn97Cu3: 42K8-P0TT-V003-SX4S
Sn99,3Cu0,7: VRTR-U2K9-T00D-0NJ8

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:

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

GHS07

Signal word Warning

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

(Contd. on page 2)

— EU —

Safety data sheet

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

Printing date 04.06.2025

Version number 6 (replaces version 5)

Revision: 14.05.2025

Trade name: ISO-CORE "AL" SnCu,
Sn97Cu3; Sn99,3Cu0,7

(Contd. of page 1)

P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

P332+P313 *If skin irritation occurs: Get medical advice/attention.*

P362+P364 *Take off contaminated clothing and wash it before reuse.*

P337+P313 *If eye irritation persists: Get medical advice/attention.*

Labelling of packages where the contents do not exceed 125 ml

Hazard pictograms



GHS07

Signal word *Warning*

Hazard statements *Void*

Precautionary statements

P101 *If medical advice is needed, have product container or label at hand.*

P102 *Keep out of reach of children.*

P103 *Read carefully and follow all instructions.*

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: 7440-50-8 EINECS: 231-159-6 Index number: 029-024-00-X Reg.nr.: 01-2119480154-42	copper ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<3%
CAS: 141-43-5 EINECS: 205-483-3 Index number: 603-030-00-8 Reg.nr.: 01-2119486455-28	2-aminoethanol ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332 Aquatic Chronic 3, H412 Specific concentration limit: STOT SE 3; H335: C ≥ 5 %	<2.5%

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

After inhalation: *Supply fresh air; consult doctor in case of complaints.*

After skin contact: *Generally the product does not irritate the skin.*

After eye contact: *Rinse opened eye for several minutes under running water.*

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.*

(Contd. on page 3)

EU

Safety data sheet

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

Printing date 04.06.2025

Version number 6 (replaces version 5)

Revision: 14.05.2025

Trade name: ISO-CORE "AL" SnCu,
Sn97Cu3; Sn99,3Cu0,7

(Contd. of page 2)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures *Not required.*

6.2 Environmental precautions:

No special measures required.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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 precautions are necessary if used correctly.*

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: *Not required.*

Further information about storage conditions: *None.*

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

WES (Australia)

Long-term value: 2 mg/m³

MAK (Germany)

vgl. Abschn. IIb

OEL (Ireland)

Short-term value: 0.2** mg/m³

Long-term value: 2* 0.1** mg/m³

IOELV, *metal, oxide, inorg. compds., **org. compds.

7440-50-8 copper

WES (Australia)

Long-term value: 1* 0.2** mg/m³

*dust & mists (as Cu) **fume

AGW (Germany)

Long-term value: 0.045 (A) 0.200 (E) mg/m³

8 (II) (A) 4 (II) (E); AGS, 10, als Cu

WEL (Great Britain)

Short-term value: 2** mg/m³

Long-term value: 0.2* 1** mg/m³

*fume **dusts and mists (as Cu)

OEL (Ireland)

Long-term value: 0.2* 1** mg/m³

*fume **dusts and mists

141-43-5 2-aminoethanol

IOELV (EU)

Short-term value: 7.6 mg/m³, 3 ppm

Long-term value: 2.5 mg/m³, 1 ppm

Skin

WES (Australia)

Short-term value: 15 mg/m³, 6 ppm

Long-term value: 7.5 mg/m³, 3 ppm

AGW (Germany)

Long-term value: 0.5 mg/m³, 0.2 ppm

1(I); DFG, EU, H, Y, Sh, 11

WEL (Great Britain)

Short-term value: 7.6 mg/m³, 3 ppm

Long-term value: 2.5 mg/m³, 1 ppm

Sk

(Contd. on page 4)

EU

Safety data sheet

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

Printing date 04.06.2025

Version number 6 (replaces version 5)

Revision: 14.05.2025

Trade name: ISO-CORE "AL" SnCu,
Sn97Cu3; Sn99,3Cu0,7

(Contd. of page 3)

OEL (Ireland)	Short-term value: 7.6 mg/m ³ , 3 ppm Long-term value: 2.5 mg/m ³ , 1 ppm Skin, IOELV
---------------	--

Regulatory information

WES (Australia): Workplace exposure standards for airborne contaminants

MAK (Germany): MAK- und BAT-Liste

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

AGW (Germany): TRGS 900

WEL (Great Britain): EH40/2020

IOELV (EU): (EU) 2019/1831

recommended monitoring procedures in accordance with 2020/878/EU no. 8.1.2:

7440-31-5 tin: NIOSH 7300, 7301, 7303(E), OSHA ID-121, ISO15202(E,F), MTA/MA-025/A92(ESP)

7440-50-8 copper: BIA 7755 (D), NIOSH 7301(E), MétroPol Fiche 003(F), MTA/MA-025/A92(ESP)

141-43-5 2-aminoethanol: DFG 1 "Alkanolamine"(D,E), BIA 6120(D), OSHA PV 2111(E), NIOSH 3509, 2007(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.

Individual protection measures, such as personal protective equipment**General protective and hygienic measures:** Wash hands before breaks and at the end of work.**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

Nitrile rubber, NBR

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: ≥ 0.33 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 ≤ 6 **Eye/face 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**

Colour:	Silver grey
Odour:	Characteristic
Odour threshold:	Not determined.
Melting point/freezing point:	vidět (oddíl 9.2)
Boiling point or initial boiling point and boiling range	Undetermined.
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined. Not applicable.

(Contd. on page 5)

EU —

Safety data sheet

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

Printing date 04.06.2025

Version number 6 (replaces version 5)

Revision: 14.05.2025

Trade name: ISO-CORE "AL" SnCu,
Sn97Cu3; Sn99,3Cu0,7

(Contd. of page 4)

Dynamic:	<i>Not determined. Not applicable.</i>
Solubility	
water:	<i>Not miscible or difficult to mix.</i>
Partition coefficient n-octanol/water (log value)	<i>Not determined.</i>
Vapour pressure:	<i>Not determined.</i>
Density and/or relative density	
Density:	<i>Not determined.</i>
Relative density	<i>Not determined.</i>
Vapour density	<i>Not determined.</i>
Particle characteristics	<i>See section 3.</i>
9.2 Other information	<i>Melting point Sn97Cu3: 227-310°C Sn99,3Cu0,7: 227°C</i>
Appearance:	
Form:	<i>Fluid</i>
Important information on protection of health and environment, and on safety.	
Ignition temperature:	<i>Product is not selfigniting.</i>
Explosive properties:	<i>Product does not present an explosion hazard.</i>
Solvent content:	
Organic solvents:	<i>2.4 %</i>
VOC (EC)	<i>0.00 %</i>
Change in condition	
Evaporation rate	<i>Not determined.</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>
Oxidising solids	<i>Void</i>
Organic peroxides	<i>Void</i>
Corrosive to metals	<i>Void</i>
Desensitised explosives	<i>Void</i>

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** *No dangerous reactions known.*
- 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.*

(Contd. on page 6)

— EU —

Safety data sheet

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

Printing date 04.06.2025

Version number 6 (replaces version 5)

Revision: 14.05.2025

Trade name: ISO-CORE "AL" SnCu,
Sn97Cu3; Sn99,3Cu0,7

(Contd. of page 5)

LD/LC50 values relevant for classification:**ATE (Acute Toxicity Estimates)**

Dermal	LD50	40,128 mg/kg (rabbit)
--------	------	-----------------------

Primary irritant effect:**Skin corrosion/irritation***Causes skin irritation.***Serious eye damage/irritation***Causes serious eye irritation.***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.***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 mm²/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:***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***Must not be disposed together with household garbage. Do not allow product to reach sewage system.***European waste catalogue***17 04 07: mixed metals***spool:***15 01 02: plastic packaging***overpack:***15 01 01: paper and cardboard packaging***Uncleaned packaging:****Recommendation:** *Disposal must be made according to official regulations.***Recommended cleansing agents:** *Water, if necessary together with cleansing agents.*

(Contd. on page 7)

— EU —

Safety data sheet

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

Printing date 04.06.2025

Version number 6 (replaces version 5)

Revision: 14.05.2025

Trade name: ISO-CORE "AL" SnCu,
Sn97Cu3; Sn99,3Cu0,7

(Contd. of page 6)

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.*

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 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:

24.03.2016: Adapting to Regulation 453/2010/EG, 830/2015/EU, 2012/18/EU

15.01.2019: Section 13

05.10.2022: Section 1, 3, 7, 8, 15, 16

06.03.2025: Section 12

14.05.2025: Section 1, 3, 8, 12, 16

(Contd. on page 8)

— EU —

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

Printing date 04.06.2025

Version number 6 (replaces version 5)

Revision: 14.05.2025

**Trade name: ISO-CORE "AL" SnCu,
 Sn97Cu3; Sn99,3Cu0,7**

(Contd. of page 7)

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

Relevant phrases

H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

Contact: Dr. M. Probst**Version number of previous version:** 5**Abbreviations and acronyms:**

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)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 ATE: Acute toxicity estimate values
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation – 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
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Safety data sheet SD3099

— EU —