

# Safety data sheet

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

Printing date 05.07.2021

Version number 4

Revision: 05.07.2021

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

**1.1 Product identifier**

Trade name: soft solder Sn100-403CLe(+) Refill, Sn100-403CLeS(+) Refill,  
Sn100-403CLe(+03) Refill, HAL  
SnCu07NiGe0,0055, SnCu07NiGe0,01

UFI: not applicable

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**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 nickel powder. May produce an allergic reaction.

Safety data sheet available on request.

**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****Dangerous components:**

CAS: 7440-02-0 EINECS: 231-111-4 Index number: 028-002-00-7 Reg.nr.: 01-2119438727-29	nickel powder	0.14-0.31%
	☠ Carc. 2, H351; STOT RE 1, H372; ⚠ Skin Sens. 1, H317	
CAS: 7440-31-5 EINECS: 231-141-8 Reg.nr.: 01-2119486474-28	tin substance with a Community workplace exposure limit	50-100%

## 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.

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**After skin contact:***Generally the product does not irritate the skin.**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:** *Rinse opened eye for several minutes under running water. Then consult a doctor.***After swallowing:***Rinse out mouth and then drink plenty of water.**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:***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:** *Do not inhale explosion gases or combustion gases.*

## SECTION 6: Accidental release measures

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

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

MAK (Germany)

*vgl. Abschn. IIb*

OEL (Ireland)

*Short-term value: 0.2\*\* mg/m<sup>3</sup>**Long-term value: 2\* 0.1\*\* mg/m<sup>3</sup>**IOELV, \*metal, oxide, inorg. compds., \*\*org. compds.***7440-02-0 nickel (massive)**

AGW (Germany)

*Long-term value: 0.006A; 0.030E\* mg/m<sup>3</sup>**8(II); AGS, 24, Sh, Y, 10\*, 31\**

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WEL (Great Britain)	Long-term value: 0.5 mg/m <sup>3</sup> as Ni; Sk; Carc
OEL (Ireland)	Long-term value: 0.5 mg/m <sup>3</sup> Sens

## Regulatory information

MAK (Germany): MAK- und BAT-Liste

OEL (Ireland): 2020 CoP for the Safety, Health and Welfare at Work

AGW (Germany): TRGS 900

WEL (Great Britain): EH40/2020

**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)

**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:**

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

**Hand protection**

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

**Material of gloves**

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.

**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.

**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:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	227 °C
Boiling point or initial boiling point and boiling range	Undetermined.
Flammability	Product is not flammable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Auto-ignition temperature:	Not determined.
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.

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**Density and/or relative density****Density at 20 °C:**7.3 g/cm<sup>3</sup>**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 %

**Solids content:**

100.0 %

**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

**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** 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.**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**

Mixture was subjected to an investigation according to DIN 1811 - nickel permeability.

Sample number: 2016-03780

Result: <0.50 µg / cm<sup>2</sup> / week**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.

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**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:

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 06: tin

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.

## 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

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### 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 (EC) No 1907/2006 ANNEX XVII** *Conditions of restriction: 27*

**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.*

#### 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:

21.12.2016: adaption to Regulation 453/2010/EG, 830/2015/EU, 2012/18/EU

15.10.2019: section 1, 3, 8, 13

05.07.2021. section 1, 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.*

H372 *Causes damage to organs through prolonged or repeated exposure.*

**Contact:** Dr. M. Probst

**Version number of previous version:** 3

#### 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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

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

**Safety data sheet SD3355**

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