

# Safety data sheet

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

Printing date 12.07.2018

Version number 2

Revision: 11.07.2018

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

**1.1 Product identifier**

Trade name: **ISO-Core "RA" ,SnPb(Sb), PbSn(Sb)**  
**Pb 37-75%, Sn 25-63%, Sb 0-5%**

**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 hr. emergency information:*

*Poison emergency call Berlin*

*"Giftnotruf Berlin"*

*Tel.: 0049-30-30686 790*

**Information which should have been included on the identification label.**

**(Annex I No. 1.3.4 REGULATION (EC) No 1272/2008)**

*Metals in massive form, alloys, mixtures containing polymers and mixtures containing elastomers do not require a label according to this Annex, if they do not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment in the form in which they are placed on the market, although classified as hazardous in accordance with the criteria of this Annex.*

*see chapter 2.2*

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**



*GHS08 health hazard*

*Repr. 1A H360FD-H362 May damage fertility. May damage the unborn child. May cause harm to breast-fed children.*

*STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.*

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

*The product is classified according to the CLP regulation. A label is not required (CLP Annex I, 1.3.4.1.)*

*The information according to CLP Annex I, 1.3.4.2. will be announced in section 2.2.*

**Hazard pictograms**

GHS08

**Signal word** *Danger*

**Hazard-determining components of labelling:**

*lead*

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**Hazard statements**

H360FD-H362 May damage fertility. May damage the unborn child. May cause harm to breast-fed children.  
 H372 Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P263 Avoid contact during pregnancy and while nursing.  
 P264 Wash thoroughly after handling.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Additional information:**

Contains Rosin. May produce an allergic reaction.  
 Restricted to professional users.

**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: 7439-92-1 EINECS: 231-100-4 Reg.nr.: 01-2119513221-59	lead	 Repr. 1A, H360FD-H362; STOT RE 1, H372	37-75%
CAS: 8050-09-7 EINECS: 232-475-7 Reg.nr.: 01-2119480418-32	Rosin	 Skin Sens. 1, H317	<1%

**SVHC**

7439-92-1	lead
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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:**

Wash hands regularly.

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.

**After swallowing:** Rinse out mouth and then drink plenty of water.

**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:**

Use fire extinguishing methods suitable to surrounding conditions.

CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

**For safety reasons unsuitable extinguishing agents:** Water

**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

**5.3 Advice for firefighters****Protective equipment:**

Do not inhale explosion gases or combustion gases.

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Wear self-contained respiratory protective device.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective clothing.

Mount respiratory protective device.

**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.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**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

Extractors are required on all machines used for thermal processing or splinter removal processes.

Provide suction extractors if dust is formed.

Any unavoidable deposit of dust must be regularly removed.

Ensure good ventilation/exhaustion at the workplace.

**Information about fire - and explosion protection:** Keep respiratory protective device available.

### 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 under lock and key and with access restricted to technical experts or their assistants only.

Store in dry conditions.

Keep container tightly sealed.

**Storage class:** 6.1 D

**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.

### 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>7439-92-1 lead</b>	
AGW (EU)	Long-term value: 0.15 mg/m <sup>3</sup>
BOELV (EU)	Long-term value: 0.15 mg/m <sup>3</sup> as Pb
MAK (Germany)	vgl. Abschn. XII
<b>7440-36-0 antimony</b>	
MAK (Germany)	vgl. Abschn. XII
<b>8050-09-7 Rosin</b>	
MAK (Germany)	vgl. Abschn. IV

### Regulatory information

MAK (Germany): MAK- und BAT-Liste

BOELV (EU): 98/24/EG

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

7439-92-1 lead: NIOSH 7702(E) "lead"

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Ingredients with biological limit values:	
<b>7439-92-1 lead</b>	
BAT (EU)	70 µg/dl blood lead
BGW (Germany)	300 µg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: keine Beschränkung Parameter: Blei Frauen < 45 J.
	400 µg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: keine Beschränkung Parameter: Blei

**Regulatory information** BGW (Germany): TRGS 903

**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.

### Personal protective equipment:

#### General protective and hygienic measures:

Pregnant women should strictly avoid inhalation or skin contact.

Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

#### Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P3

#### Protection of hands:



Protective gloves

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

#### Material of gloves

heat-resistant glove with nitrile inner glove.

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:  $\geq 0.2$  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 374 part III 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  $\leq 6$

**As protection from splashes gloves made of the following materials are suitable:** Nitrile rubber, NBR

**Eye 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

##### Appearance:

Form:	Solid
Colour:	Silver-coloured
Odour:	Odourless
Odour threshold:	Not determined.
pH-value:	Not applicable.

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**Change in condition**

<b>Melting point/freezing point:</b>	183-255 °C
<b>Initial boiling point and boiling range:</b>	Undetermined.
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gas):</b>	Not determined.
<b>Decomposition temperature:</b>	Not determined.
<b>Auto-ignition temperature:</b>	Product is not selfigniting.
<b>Explosive properties:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure:</b>	Not applicable.
<b>Density:</b>	Not determined.
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Solubility in / Miscibility with water:</b>	Insoluble.
<b>Partition coefficient: n-octanol/water:</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
<b>Solvent content:</b>	
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	100.0 %
<b>9.2 Other information</b>	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 according to specifications.

**10.3 Possibility of hazardous reactions**

Toxic fumes may be released if heated above the decomposition point.

Reacts with strong acids and oxidising agents.

Develops toxic gases/fumes.

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:**

Toxic metal oxide smoke

Leadoxide vapour

## 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**

May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

**STOT-single exposure** Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Based on available data, the classification criteria are not met.

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## 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  
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.

**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.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**European waste catalogue**

17 04 09\*: metal waste contaminated with hazardous substances

HP 5: Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP 10: Toxic for reproduction

spool:

15 01 02: plastic packaging

packaging:

15 01 01: paper and cardboard packaging

**Uncleaned packaging:**

void.

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.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 63, 30

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**National regulations:****Additional classification according to Decree on Hazardous Materials, Annex II:***Can cause cancer if present as respirable dust.***Information about limitation of use:***Employment restrictions concerning women of child-bearing age must be observed.**Employment restrictions concerning pregnant and lactating women must be observed.**Employment restrictions concerning juveniles must be observed.***Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.***Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**

7439-92-1 | lead

**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:** 11.07.2018: chapter 3, 15 SVHC**Relevant phrases***H317 May cause an allergic skin reaction.**H360FD May damage fertility. May damage the unborn child.**H362 May cause harm to breast-fed children.**H372 Causes damage to organs through prolonged or repeated exposure.***Recommended restriction of use** *For commercial use only.***Contact:** *Dr. M. Probst***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 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**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Skin Sens. 1: Skin sensitisation – Category 1**Repr. 1A: Reproductive toxicity – Category 1A**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1***Safety data sheet SD3011**