

# Safety data sheet

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

Printing date 03.02.2023

Version number 4

Revision: 08.12.2022

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

**1.1 Product identifier****Trade name:** Lead wire, lead pencils, lead ingots, Pb99,9**CAS Number:**

7439-92-1

**EC number:**

231-100-4

**Index number:**

082-014-00-7

**Registration number** 01-2119513221-59**UFI:** Q9J9-U0SJ-P00A-M38G**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***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***EuPCS:** PC-TEC-24

## 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.*

(Contd. on page 2)

— EU —

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(Contd. of page 1)

**Hazard pictograms**

GHS08

**Signal word** *Danger***Hazard-determining components of labelling:***lead***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.**P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***Additional information:***Restricted to professional users.***Information concerning particular hazards for human and environment:** *Risk of poisoning at mucosal contact***2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***SECTION 3: Composition/information on ingredients****3.1 Substances****CAS No. Description**7439-92-1 *lead***Identification number(s)****EC number:** 231-100-4**Index number:** 082-014-00-7**SVHC**7439-92-1 | *lead***SECTION 4: First aid measures****4.1 Description of first aid measures****General information:***Take affected persons out into the fresh air.**Keep quiet and cover.***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:** *Rinse opened eye for several minutes under running water. Then consult a doctor.***After swallowing:***Rinse out mouth and then drink plenty of water.**Seek immediate medical advice.***4.2 Most important symptoms and effects, both acute and delayed***Headache**Gastric or intestinal disorders***4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.*

(Contd. on page 3)

— EU —

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(Contd. of page 2)

## 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: Wear self-contained respiratory protective device.

## SECTION 6: Accidental release measures

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

Wear protective clothing.

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

### 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

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

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

Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal.

Ensure good ventilation/exhaustion at the workplace.

Extractor required at the object.

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.

Do not store together with oxidising and acidic materials.

Do not store together with alkalis (caustic solutions).

Further information about storage 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

### 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

#### 7439-92-1 lead

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

OEL (Ireland) Long-term value: 0.15 mg/m<sup>3</sup>  
Repr1A, BOELV

#### Regulatory information

BOELV (EU): EU 2022/431

MAK (Germany): MAK- und BAT-Liste

OEL (Ireland): 2021 CoP for the Safety, Health and Welfare at Work

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

7439-92-1 lead: NIOSH 7702(E), OSHA 1006(E), OSHA ID-206(E)

(Contd. on page 4)

EU —

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(Contd. of page 3)

Ingredients with biological limit values:	
7439-92-1 lead	
BAT (EU)	70 µg/dl blood lead
BGW (Germany)	150 µg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: keine Beschränkung Parameter: Blei, AGS

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** 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:**

Pregnant women should strictly avoid inhalation or skin contact.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

**Respiratory protection:** Filter P2**Hand protection**

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

**Material of gloves**

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.

Schutzhandschuhe

**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.

**Eyeface protection**

Tightly sealed goggles

**Body protection:** Protective work clothing

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties****General Information****Colour:**

Grey

**Odour:**

Recognisable

**Odour threshold:**

Not determined.

**Melting point/freezing point:**

326 °C

**Boiling point or initial boiling point and boiling range** 1740 °C**Flammability**

Product is not flammable.

**Lower and upper explosion limit****Lower:**

Not determined.

**Upper:**

Not determined.

**Flash point:**

Not applicable.

**Decomposition temperature:**

Not determined.

**pH**

Not applicable.

**Viscosity:****Kinematic viscosity**

Not applicable.

**Dynamic:**

Not applicable.

(Contd. on page 5)

EU —

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(Contd. of page 4)

**Solubility**

water:

*Insoluble.*

Partition coefficient n-octanol/water (log value)

*Not determined.*

Vapour pressure:

*Not applicable.*

Density and/or relative density

Density at 20 °C:

*11.4 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 in various forms*

Important information on protection of health and environment, and on safety.

Auto-ignition temperature:

*Not determined.*

Explosive properties:

*Product does not present an explosion hazard.*

Solvent content:

Organic solvents:

*0.0 %*

VOC (EC)

*0.00 %*

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.***10.3 Possibility of hazardous reactions***Toxic fumes may be released if heated above the decomposition point.**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:***Toxic metal oxide smoke**Leadoxide vapour***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.*

(Contd. on page 6)

— EU —

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(Contd. of page 5)

**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.**11.2 Information on other hazards****Endocrine disrupting properties**

Substance is not 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**

The product does not contain substances with endocrine disrupting properties.

**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

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation** Contact manufacturer for recycling information.**European waste catalogue**

17 04 03: lead

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:****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

(Contd. on page 7)



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(Contd. of page 6)

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 *Substance is not listed.*REGULATION (EU) 2019/1021 on persistent organic pollutants (POP) *None of the ingredients are listed.*REGULATION (EC) No 1907/2006 ANNEX XVII *Conditions of restriction: 30, 63, 72*

Regulation (EU) No 649/2012

*Underkategori: i(2);Begrensning: sr*

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

7439-92-1 | *lead*

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

*Substance is not listed.*

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

*Substance is not listed.*

Regulation (EC) No 273/2004 on drug precursors

*Substance is not listed.*

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

*Substance is not listed.*

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 pregnant and lactating women must be observed.**Employment restrictions concerning women of child-bearing age must be observed.**Employment restrictions concerning juveniles must be observed.*Waterhazard class: *Water hazard class 2 (Self-assessment): 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:

27.08.2018: *section 3, 13, 15*10.06.2020: *section 1, 2, 13*08.12.2022: *section 1, 15, 16*

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

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 relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

(Contd. on page 8)

— EU —

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(Contd. of page 7)

*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**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**Repr. 1A: Reproductive toxicity – Category 1A**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1***Safety data sheet SD3451**

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— EU —