

Safety data sheet

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

Printing date 09.02.2026

Version number 7 (replaces version 6)

Revision: 21.12.2025

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

1.1 Product identifierTrade name: **Bearing metal SnSb12Cu6Pb (WM80)**

UFI: PDR8-20ME-U00T-T38S

**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-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**

GHS08 health hazard

Repr. 1A H360FD May damage fertility. May damage the unborn child.

Lact. H362 May cause harm to breast-fed children.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS09 environment

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

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

GHS08 GHS09

Signal word *Danger***Hazard-determining components of labelling:***lead***Hazard statements**

H360FD May damage fertility. May damage the unborn child.

H362 May cause harm to breast-fed children.

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

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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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.

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	77-83%
CAS: 7440-36-0 EINECS: 231-146-5 Reg.nr.: 01-2119475609-24	antimony substance with a Community workplace exposure limit	11-13%
CAS: 7440-50-8 EINECS: 231-159-6 Index number: 029-026-00-0 Reg.nr.: 01-2119480154-42	copper ⚠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1)	5-7%
CAS: 7439-92-1 EINECS: 231-100-4 Index number: 082-014-00-7 Reg.nr.: 01-2119513221-59	lead ⚠ Repr. 1A, H360FD; Lact., H362; STOT RE 1, H372 ⚠ Aquatic Chronic 1, H410 (M=10)	1-3%
SVHC		
7439-92-1	lead	

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:**

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.**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**

Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters**Protective equipment:** Do not inhale explosion gases or combustion gases.

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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.

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.

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.

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: 6.1 C

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/m ³
MAK (Germany)	vgl. Abschn. IIb
OEL (Ireland)	Short-term value: 0.2** mg/m ³ Long-term value: 2* 0.1** mg/m ³ IOELV, *metal, oxide, inorg. compds., **org. compds.

7440-36-0 antimony

WES (Australia)	Long-term value: 0.5 mg/m ³ as Sb
MAK (Germany)	vgl. Abschn. XII
WEL (Great Britain)	Long-term value: 0.5 mg/m ³ as Sb
OEL (Ireland)	Long-term value: 0.5 mg/m ³ as Sb

7440-50-8 copper

WES (Australia)	Long-term value: 1* 0.2** mg/m ³ *dust & mists (as Cu) **fume
MAK (Germany)	Long-term value: 0.01 A mg/m ³ als Cu
WEL (Great Britain)	Short-term value: 2** mg/m ³ Long-term value: 0.2* 1** mg/m ³ *fume **dusts and mists (as Cu)
OEL (Ireland)	Long-term value: 0.2* 1** mg/m ³ *fume **dusts and mists

7439-92-1 lead

AGW (EU)	Long-term value: 0.15 mg/m ³
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BOELV (EU)	Long-term value: 0.15 mg/m ³ as Pb
WES (Australia)	Long-term value: 0.05 mg/m ³
MAK (Germany)	Long-term value: 0.004E mg/m ³ vgl. Abschn. XII
OEL (Ireland)	Long-term value: 0.15 mg/m ³ Repr1A, BOELV

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

WEL (Great Britain): EH40/2020

BOELV (EU): EU 2022/431

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

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

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

7440-36-0 antimony: BIA 7175(D); MétroPol Fiche 003(F); NIOSH 7300, 7301, 7303(E)

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

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

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 section 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.

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 Leather gloves**Penetration time of glove material** Value for the permeation: Level ≤ n.b.**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-coloured
Odour:	Odourless
Odour threshold:	Not determined
Melting point/freezing point:	183-400 °C
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
Decomposition temperature:	Not determined

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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 determined
Relative density at 20 °C	7.39
Vapour density	Not applicable
Particle characteristics	See section 3.
9.2 Other information	
Appearance:	
Form:	Solid
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
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.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

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

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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.

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.

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

May cause 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

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:

The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary

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 09*	metal waste contaminated with hazardous substances
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP10	Toxic for reproduction
HP14	Ecotoxic

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

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SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA

UN3077

14.2 UN proper shipping name

ADR

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S.
(LEAD)

IMDG, IATA

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S. (copper, lead)**14.3 Transport hazard class(es)**

ADR, IMDG, IATA



Class

9 Miscellaneous dangerous substances and articles.

Label

9

14.4 Packing group

ADR, IMDG, IATA

III

14.5 Environmental hazards:

Marine pollutant:

No

Symbol (fish and tree)

Special marking (ADR):

Symbol (fish and tree)

Special marking (IATA):

Symbol (fish and tree)

14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

Hazard identification number (Kemler code):

90

EMS Number:

F-A,S-F

Stowage Category

A

Stowage Code

SW23 When transported in BK3 bulk container, see 7.6.2.12 and
7.7.3.9.**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable

Transport/Additional information:

ADR

Limited quantities (LQ)

5 kg

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

Transport category

3

Tunnel restriction code

(-)

Remarks:

Special regulation SV 375 (not subject to ADR, if
inner packaging maximum 5kg/5liter)Suspension of hazardous goods classification for solid lead (no
environmental hazard) M366 'Environmentally hazardous metal
alloys containing lead' (<https://unece.org/transport/road-transport/adr-multilateral-agreements>).

IMDG

Limited quantities (LQ)

5 kg

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

UN "Model Regulation":

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S.
(LEAD), 9, III

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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.*

Seveso category E1 *Hazardous to the Aquatic Environment*

Qualifying quantity (tonnes) for the application of lower-tier requirements *100 t*

Qualifying quantity (tonnes) for the application of upper-tier requirements *200 t*

REGULATION (EU) 2019/1021 on persistent organic pollutants (POP) *None of the ingredients are included.*

REGULATION (EC) No 1907/2006 ANNEX XVII *Conditions of restriction: 30, 63, 72*

Regulation (EU) No 649/2012

7439-92-1 | *lead*

Annex I Part 1

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))

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 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 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:

08.11.2016: *adaption to Regulation 830/2015/EU, 2012/18/EU*

14.11.2018: *section 2, 3, 7, 13, 15*

02.02.2022: *section 1, 3, 13, 15, 16*

24.02.2025: *section 8*

05.03.2025: *section 1, 2, 3, 8, 12, 14, 15, 16 (21. ATP)*

21.12.2025: *section 14*

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

Relevant phrases

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.*

H400 *Very toxic to aquatic life.*

H410 *Very toxic to aquatic life with long lasting effects.*

Contact: *Dr. M. Probst*

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Version number of previous version: 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)

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

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 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Safety data sheet SD3161

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