



Material Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product:	Solder Tin, lead free, diameter 1 mm
Manufacturer:	Conrad Electronic SE
Address:	Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	29.06.2023

1.1 Product identifier

Trade name: Solder, Lead Free, Diameter: 1mm

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

Application of the substance / the mixture: For soldering operation

Remark:

This product is likely to be classified as article with substances not intended to be released and is out of scope of a SDS as set out in Regulation (EC) No 1907/2006. This SDS is generated for applicant's reference only.

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.

Information concerning particular hazards for human and environment:

The product has not to be labelled due to the calculation procedure of Regulation (EC) No. 1272/2008.

Classification system:

The classification is according to the latest edition of EU Regulation (EC) No. 1272/2008, and extended by company and literature data.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008: Not applicable

Hazard pictograms: Not applicable

Signal word: Not applicable

Hazard-determining components of labelling: Not applicable

Hazard statements: Not applicable

Precautionary statements: Not applicable

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Determination of endocrine-disrupting properties: Not applicable



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3. Composition/information on ingredients

3.2 Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Composition:			
CAS: 7440-31-5 EINECS: 231-141-8	tin	substance with a Union workplace exposure limit	99.3%
CAS: 7440-50-8 EINECS: 231-159-6	copper		0.7%

Remark: Both ingredients listed above are not classified according to Regulation (EC) No. 1272/2008.

4. First aid measures

4.1 Description of first aid measures

General information:

No special measures required.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

After skin contact:

Wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth with water.

Never give anything by mouth to an unconscious person.

Seek medical treatment.

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.



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5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment:

Wear fully protective suit.

Mouth respiratory protective device.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Ensure adequate ventilation.

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

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.

Dispose contaminated material as waste according to section 13.

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.



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7. Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

For the general occupational hygienic measures refer to Section 8.

Information about fire - and explosion protection:

Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with oxidising and acidic materials.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s)

No further relevant information available.

8. Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
CAS: 7440-31-5 tin	
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.
CAS: 7440-50-8 copper	
MAK (Germany)	Long-term value: 0.01 A mg/m ³ als Cu
VLEP (France)	VLEP (France) Short-term value: 2** mg/m ³ Long-term value: 0.2* 1** mg/m ³ *fumées **poussières, en Cu
OEL (Ireland)	OEL (Ireland) Long-term value: 0.2* 1** mg/m ³ *fume **dusts and mists



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Regulatory information

MAK (Germany): MAK- und BAT-Liste

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

VLEP (France): ED 1487 05.2021

DNELs:

Data not available

PNECs:

Data not available

Additional information:

The lists valid during the making were used as basis.

8.2 Exposure controls

Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure.

Appropriate engineering controls

See Section 7 for information about design of technical facilities.

Individual protection measures, such as personal protective equipment

Respiratory protection:

Suitable respiratory protective device recommended.

Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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.

Eye/face protection

Goggles recommended during refilling.

Body protection:

Protective work clothing

Thermal hazards:

Not required for normal conditions of use.

Environmental exposure controls:

Control measures must be made in accordance with Community environmental protection legislation.



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9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state.	Solid
Colour:	Silver
Odour:	Odorless
Odour threshold:	Data not available
Melting point/freezing point:	Data not available
Boiling point or initial boiling point and boiling range.	Data not available
Flammability	Data not available
Lower and upper explosion limit	
Lower:	Data not available
Upper:	Data not available
Flash point:	Data not available
Auto-ignition temperature:	Data not available
Decomposition temperature:	Data not available
pH:	Data not available
Viscosity:	
Kinematic viscosity:	Data not available
Dynamic viscosity:	Data not available
Solubility water:	Data not available
Partition coefficient n-octanol/water (log value):	Data not available
Vapour pressure:	Data not available
Density and/or relative density	
Density:	Data not available
Relative density:	Data not available
Relative vapour density:	Data not available
Particle characteristics:	Data not available

9.2 Other information

Appearance:

Form:	Solid
Information with regard to physical hazard classes	
Explosives:	Not applicable
Flammable gases:	Not applicable
Aerosols:	Not applicable
Oxidising gases:	Not applicable
Gases under pressure:	Not applicable



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Flammable liquids:	Not applicable
Flammable solids:	Not applicable
Self-reactive substances and mixtures:	Not applicable
Pyrophoric liquids:	Not applicable
Pyrophoric solids:	Not applicable
Self-heating substances and mixtures:	Not applicable
Substances and mixtures, which emit flammable gases in contact with water:	Not applicable
Oxidising liquids:	Not applicable
Oxidising solids:	Not applicable
Organic peroxides:	Not applicable
Corrosive to metals:	Not applicable
Desensitised explosives:	Not applicable
Other safety characteristics:	Data not available

10. Stability and reactivity

10.1 Reactivity

No decomposition if used according to specifications.

10.2 Chemical stability

Stable under recommended storage conditions.

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.



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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.

LD/LC50 values relevant for classification

Data not available

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

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.

Other information

No further relevant information available.



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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

No further relevant information available.

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.

Uncleaned packaging

Recommendation:

Disposal must be made according to official regulations.



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14. Transport information

14.1 UN number or ID number

ADR/RID/ADN, IMDG, IATA Not applicable

14.2 UN proper shipping name

ADR/RID/ADN, IMDG, IATA Not applicable

14.3 Transport hazard class(es)

ADR/RID/ADN, IMDG, IATA

Class Not applicable

Label Not applicable

14.4 Packing group

ADR/RID/ADN, IMDG, IATA Not applicable

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

14.8 Transport/Additional information

Not dangerous according to the above specifications.

UN "Model Regulation": Not applicable



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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 is listed.

Regulation (EU) No 649/2012

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.

REGULATION (EC) No 1005/2009 on substances that deplete the ozone layer – ANNEX I (Ozone-depleting potential)

None of the ingredients is listed.

Other regulations, limitations and prohibitive regulations

SVHC Candidate List of REACH Regulation Annex XIV Authorisation (14/6/2023)

None of the ingredients is listed.

REACH Regulation Annex XVII Restriction ((8/6/2023)

See Section 16 for information about restriction of use.

None of the ingredients is listed.

REACH Regulation Annex XIV Authorisation List (8/4/2022)

None of the ingredients is listed.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.



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16. Other information

The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, 1272/2008 and Regulation (EU) No 2020/878.

DISCLAIMER OF LIABILITY:

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative