



24. März 2021

Safety Data Sheet according to Regulation (EC) Nr. 453/2010

<p>Trade name: SAC-LZB</p>	<p>Flat soldering wire Sn95,5Ag3,8Cu0,7 DIN EN 29453</p>	<p>Flux F-SW34 Typ 2.2.3 B DIN EN 29 454.1</p>
<p>1.) IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING</p> <p>1.1.) Product identifier</p> <p>Product form: Trade name: Product code: Other code:</p> <p>1.2.) Relevant identified uses of the substance or mixture and uses advised against</p> <p>1.2.1.) Relevant identified uses</p> <p>Main use category: Verwendung des Stoffes/des Gemischs:</p> <p>1.2.2.) Uses advised against</p> <p>1.3.) Details of the supplier of the safety data sheet</p> <p>Company name: Address:</p> <p>1.4.) Emergency telephone number</p>	<p>Mixture Solder wire F-SW-34 SW16SAC* (Sn95,5Ag3,8Cu0,7) SAC-LZB0418</p> <p>Industrial use Solder wire</p> <p>No additional information available</p> <p>EDSYN GMBH EUROPA Finkenweg 2 D 97892 Kreuzwertheim</p> <p>Tel. 09342 - 6413 Fax: 09342 - 6417</p>	
<p>2.) HAZARDS IDENTIFICATION</p> <p>2.1.) Classification of the substance or mixture</p> <p>Classification according to Regulation (EC) no 1272/2008 (CLP)</p> <p>Classification according to Directive 67/548/EEC or 1999/45/EC</p> <p>Adverse physicochemical, human health and environmental effects</p> <p>Other information</p> <p>NFPA code:</p>	<p>Not classified</p> <p>Not classified</p> <p>No additional information available</p> <p>1-1-0</p>	



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<p>2.2.) Label elements</p> <p>Labelling according to Regulation (EC) No. 1272/2008 (CLP)</p> <p>Precautionary statements (CLP):</p> <p>2.3.) Other hazards</p> <p>Other hazards not contributing to the classification:</p>	<p>P273 – Avoid release to the environment</p> <p>The product is not hazardous as supplied nor is it hazardous when handled under normal conditions. This product may become hazardous in use and the information in this data sheet reflects the hazards associated with solder operations.</p>
<p>3.) <u>COMPOSITION/INFORMATION ON INGREDIENTS</u></p> <p>3.1.) Substances</p> <p>3.2.) Mixture</p>	<p>Not applicable</p>

Name	Product identifier	%	Classification according to Directive 67/548/EEC
tin	(CAS No) 7440-31-5 (EC No) 231-141-8 (REACH-No) 01-2119486474-28	*)	Not classified
silver	(CAS No) 7440-22-4 (EC No) 231-131-3 (REACH-No) 01-2119555669-21	*)	Not classified
Copper	(CAS No) 7440-50-8 (EC No) 231-159-6 (REACH-No) 01-2119480154-42	*)	Not classified
flux incorporated (Type F-SW-34)	-	1.6% (+/-0.2)	Not classified

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copper	(CAS No) 7440-50-8 (EC No) 231-159-6 (REACH-No) 01-2119480154-42	*)	Not classified
flux incorporated (Type F-SW-34)	-	1.6% (+/-0.2)	Not classified

*) Weight dependent on the respective alloy (see alloy overview)

Alloys	Tin % wt	Silver % wt	Copper % wt
Sn95,5Ag3,8Cu0,7	Rest	3,8 +/-0.2	0,7 +/- 0.2



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<p>4.) <u>FIRST AID MEASURES</u></p> <p>4.1.) Description of first aid measures</p> <p>First aid measures after inhalation:</p> <p>First aid measures after skin contact:</p> <p>First aid measures after eye contact:</p> <p>First aid measures after ingestion:</p> <p>4.2.) Most important symptoms and effects, both acute and delayed</p> <p>Symptoms/injuries:</p> <p>Symptoms/injuries after skin contact:</p> <p>Symptoms/injuries after eye contact:</p> <p>4.3.) Indication of any immediate medical attention and special treatment needed</p>	<p>Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.</p> <p>Lead-free solder alloys are not likely to have a harmful effect on the skin. Wash hands immediately after handling the product. In case of splash from molten metal, wash affected skin areas with copious amounts of running water. Further treatment of the burn. Soap may be used. Take victim to a doctor if irritation persists.</p> <p>Rinse immediately with plenty of water. Take victim to an ophthalmologist if irritation persists.</p> <p>Dilute stomach contents with water or milk. Do NOT induce vomiting. Ask for medical advice.</p> <p>Handle in accordance with good industrial hygiene and safety practice.</p> <p>The melted product adheres to the skin and causes burns.</p> <p>In case of splash from hot solder, irritation to the eyes and if not removed, may result in serious injury. Vapours produced during soldering operations can give slight irritation of the eye tissue.</p> <p>No additional information available</p>
<p>5.) <u>FIREFIGHTING MEASURES</u></p> <p>5.1.) Extinguishing media</p> <p>Suitable extinguishing media:</p> <p>Unsuitable extinguishing media:</p> <p>5.2.) Special hazards arising from the substance or mixture</p> <p>Fire hazard:</p> <p>Reactivity:</p> <p>5.3.) Advice for firefighters</p> <p>Protection during firefighting:</p> <p>Other information (fire fighting):</p>	<p>D powder. Dry sand.</p> <p>No water spray.</p> <p>None.</p> <p>Upon burning: formation of metallic fumes/vapours.</p> <p>Heat resistant gloves. Heat/fire exposure: compressed air/oxygen apparatus.</p> <p>Massive metal and the oxides are not combustible.</p>



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<p>6.) <u>ACCIDENTAL RELEASE MEASURES</u></p> <p>6.1.) Personal precautions, protective equipment and emergency procedures</p> <p>General measures:</p> <p>6.1.1.) For non-emergency personnel</p> <p>6.1.2.) For emergency responders</p> <p>6.2.) Environmental precautions</p> <p>6.3.) Methods and material for containment and cleaning up</p> <p>Methods for cleaning up:</p> <p>Other information:</p> <p>6.4.) Reference to other sections</p>	<p>Not applicable for solder wire.</p> <p>No additional information available</p> <p>No additional information available</p> <p>Prevent spreading in sewers.</p> <p>If melted: allow liquid to solidify before taking it up.</p> <p>Upon burning: formation of metallic fumes/vapours.</p> <p>No additional information available.</p>
<p>7.) <u>HANDLING AND STORAGE</u></p> <p>7.1.) Precautions for safe handling</p> <p>Additional hazards when processed:</p> <p>Precautions for safe handling:</p> <p>Hygiene measures:</p> <p>7.2.) Conditions for safe storage, including any incompatibilities</p> <p>Maximum storage period:</p> <p>Storage temperature:</p> <p>Storage area:</p> <p>7.3.) Specific end use(s)</p> <p><u>REACH Disclaimer:</u></p>	<p>Vapours produced during soldering operations.</p> <p>Avoid breathing fume. Work under local exhaust/ventilation. Wash hands immediately after handling the product.</p> <p>Always wash hands and face immediately after handling this product, and once again before leaving the workplace.</p> <p>2 year</p> <p>Store at ambient temperature</p> <p>Store in a dry area.</p> <p>This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number).</p>

8.) EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1.) Control parameters

tin (7440-31-5)

EU	IOELV TWA (mg/m ³)	2 mg/m ³
Belgium	Limit value (mg/m ³)	2 mg/m ³
Italy – Portugal – USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³

silver (7440-22-4)

EU	IOELV TWA (mg/m ³)	0,1 mg/m ³
Belgium	Limit value (mg/m ³)	0,1 mg/m ³
France	VME (mg/m ³)	0,1 mg/m ³
Germany	TRGS 900 (mg/m ³)	0,1 E
Italy – Portugal – USA ACGIH	ACGIH TWA (mg/m ³)	0,1 mg/m ³
The Netherlands	MAC TGG 8H (mg/m ³)	0,1 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	0,1 mg/m ³

copper (7440-50-8)

Belgium	Limit value (mg/m ³)	0,2 mg/m ³
France	VME (mg/m ³)	0,2 mg/m ³
Italy – Portugal – USA ACGIH	ACGIH TWA (mg/m ³)	0,2 mg/m ³
The Netherlands	MAC TGG 8H (mg/m ³)	0,1 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	0,2 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	2 mg/m ³

8.2.) Exposure controls

Personal protective equipment:

Safety glasses. Gloves. Heat resistant gloves if handling hot metal.



Hand protection:

The selected protective gloves must meet the specification of EU Directive 89/686/EEC and EN 374, derived therefrom.

Eye protection:

Safety glasses.

Consumer exposure controls:

The need for personal protective equipment should be based on a workplace risk assessment for the particular use.



<p>9.) <u>PHYSICAL AND CHEMICAL PROPERTIES</u></p> <p>9.1.) Information on basic physical and chemical properties</p> <p>Physical state: Appearance:</p> <p>Colour: Odour: Odour threshold: pH:</p> <p>Melting point: Freezing point: Boiling point: Flash point:</p> <p>Relative evaporation rate (butylacetate=1): Flammability (solid, gas): Explosive limits: Vapour pressure: Relative vapour density at 20° C:</p> <p>Relative density: Solubility: Log Pow: Log Kow:</p> <p>Self ignition temperature: Decomposition temperature: Viscosity, kinematic: Viscosity, dynamic: Explosive properties: Oxidising properties:</p> <p>9.2.) Other information</p>	<p>Solid Solid wire. H: 0,38 mm – L: 1,74 mm Silvery-white to grey. Odourless. No data available No data available</p> <p>IEC-EN-61190-1-3: Sn95,5Ag3,8Cu0,7: 217°C - 226° C No data available No data available (Flux) 170° C</p> <p>No data available Non flammable No data available No data available No data available</p> <p>Sn95,5Ag3,8Cu0,7: 7.5 g/cm³ Water: Insoluble No data available No data available</p> <p>No data available No data available No data available No data available No data available</p> <p>No additional information available</p>
<p>10.) <u>STABILITY AND REACTIVITY</u></p> <p>10.1.) Reactivity</p> <p>10.2.) Chemical stability</p> <p>10.3.) Possibility of hazardous reactions</p> <p>10.4.) Conditions to avoid</p> <p>10.5.) Incompatible materials</p> <p>10.6.) Hazardous decomposition products</p>	<p>Upon burning: formation of metallic fumes/vapours.</p> <p>Stable under normal conditions.</p> <p>No additional information available</p> <p>High temperatures. Will emit toxic metallic oxides.</p> <p>No additional information available</p> <p>Tin, copper and silver compounds.</p>



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<p>11.) <u>TOXICOLOGICAL INFORMATION</u></p> <p>11.1.) Information on toxicological effects</p> <p>Acute toxicity:</p> <p>Skin corrosion/irritation:</p> <p>Serious eye damage/irritation:</p> <p>Respiratory or skin sensitisation:</p> <p>Germ cell mutagenicity:</p> <p>Carcinogenicity:</p> <p>Reproductive toxicity:</p> <p>Specific target organ toxicity (single exposure):</p> <p>Specific target organ toxicity (repeated exposure):</p> <p>Aspiration hazard:</p>	<p>Not classified</p> <p><u>silver (7440-22-4)</u></p> <table border="1"> <tr> <td>LD50 oral rat</td> <td>> 10000 mg/kg (Rat)</td> </tr> <tr> <td>LD 50 dermal rat</td> <td>> 2000 mg/kg (Rat)</td> </tr> </table> <p>Not classified</p> <p>Not classified</p> <p>Not classified</p> <p>Not classified</p> <p>Not classified</p> <p>Not classified</p> <p>Not classified</p> <p>Not classified</p> <p>Not classified</p>	LD50 oral rat	> 10000 mg/kg (Rat)	LD 50 dermal rat	> 2000 mg/kg (Rat)										
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<p>12.) <u>ECOLOGICAL INFORMATION</u></p> <p>12.1.) Toxicity</p> <p>Ecology – general:</p> <p>Ecology – water:</p> <p><u>tin (7440-31-5)</u></p>	<p>The solder wire is not biodegradable and may therefore not be disposed in the environment.</p> <p>Flux used for solder wire is readily biodegradable</p> <table border="1"> <tr> <td>LC50 fishes 1</td> <td>0,42 mg/l (672 h; Salmo gairdneri (Oncorhynchus mykiss);Metal ion)</td> </tr> <tr> <td>LC50 other aquatic organisms 1</td> <td>10 mg/l (144 h, GAMMARUS SP.)</td> </tr> <tr> <td>EC50 Daphnia 1</td> <td>1,5 mg/l (504 h, DAPHNIA MAGNA)</td> </tr> <tr> <td>EC50 other aquatic organisms 1</td> <td>21,23 mg/l (96 h, TUBIFEX TUBIFEX)</td> </tr> <tr> <td>LC50 fish 2</td> <td>0,42 mg/l (672 h, SALMO GAIRDNERI/ONCORHYNCHUS MYKISS, METAL ION)</td> </tr> <tr> <td>LC50 other aquatic organisms 2</td> <td>42 mg/l (48 h, DAPHNIA MAGNA)</td> </tr> <tr> <td>EC50 other aquatic organisms 2</td> <td>140,28 mg/l (48 h, TUBIFEX TUBIFEX, METAL ION)</td> </tr> </table>	LC50 fishes 1	0,42 mg/l (672 h; Salmo gairdneri (Oncorhynchus mykiss);Metal ion)	LC50 other aquatic organisms 1	10 mg/l (144 h, GAMMARUS SP.)	EC50 Daphnia 1	1,5 mg/l (504 h, DAPHNIA MAGNA)	EC50 other aquatic organisms 1	21,23 mg/l (96 h, TUBIFEX TUBIFEX)	LC50 fish 2	0,42 mg/l (672 h, SALMO GAIRDNERI/ONCORHYNCHUS MYKISS, METAL ION)	LC50 other aquatic organisms 2	42 mg/l (48 h, DAPHNIA MAGNA)	EC50 other aquatic organisms 2	140,28 mg/l (48 h, TUBIFEX TUBIFEX, METAL ION)
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12.2.) Persistence and degradability

tin (7440-31-5)

Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

silver(7440-22-4)

Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

copper (7440-50-8)

Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3.) Bioaccumulative potential

tin (7440-31-5)

BCF fish 1	< 0,00036 (Pisces; Dry weight)
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silver (7440-22-4)

Bioaccumulative potential	Not bioaccumulative.
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copper (7440-50-8)

Bioaccumulative potential	Not bioaccumulation data available.
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12.4.) Mobility in soil

No additional information available

12.5.) Result of PBT- and vPvB-assessment

No additional information available

12.6.) Other adverse effects

No additional information available



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<p>13.) <u>DISPOSAL CONSIDERATIONS</u></p> <p>13.1.) Waste treatment methods</p> <p>Regional legislation (waste):</p> <p>Waste disposal recommendations:</p> <p>Ecology – waste materials:</p>	<p>Disposal must be done according to official regulations.</p> <p>Do not discharge into the sewer. Do not discharge into surface water. Recycle/reuse.</p> <p>Do not discharge into surface water. Do not discharge into the sewer. Recycle/reuse. LWCA (the Netherlands): KGA category 05.</p>
<p>14.) <u>TRANSPORT INFORMATION</u></p>	<p>No dangerous good in sense of transport regulations</p> <p>Additional rules to be obtained at EDSYN GMBH EUROPA</p> <p>Remark: Above mentioned regulations are in force at the moment of publication of this (SDS) safety data sheet. With reference to possible modifications in transport regulations of dangerous goods, we advise you to verify its validity at EDSYN GMBH EUROPA.</p>
<p>15.) <u>REGULATORY INFORMATION</u></p> <p>15.1.) Safety, health and environmental regulations/legislation specific for the substance or mixture</p> <p>15.1.1.) EU Regulations</p> <p>EURAL code:</p> <p>15.1.2.) National regulations</p> <p>Storage class (LGK):</p> <p>15.2.) Chemical safety assessment</p>	<p>Contains no REACH candidate substance</p> <p>10 08 11</p> <p>LGK 13 – Non-combustible solids</p> <p>Chemical safety assessments for substances in this preparation were carried out</p>
<p>16.) <u>OTHER INFORMATION</u></p> <p>Other information</p> <p>Version:</p> <p>Revision date:</p>	<p>Intrastat 8311 30 00</p> <p>7.1/ED</p> <p>06.06.2014 / 05.05.2015 / 24.02.2016</p>

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



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DISCLAIMER

The information in this Safety Data Sheet (SDS) is believed to be correct as of the data issued. Because we cannot anticipate or control the many different conditions under which this information and our products may be used, we do not guarantee the applicability or the accuracy of this information or the suitability of our products in any given situation. Users of our products should make their own tests to determine the suitability of each such product for their particular purposes. The products discussed are sold without such warranty, either expressed or implied.

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