



31.03.2022

### Material Safety Data Sheet - according to directive 1907/2006/EC

#### INTERNATIONAL STANDARD NORM ISO 11014-1

Trade Name: SSC	Solder wire S-Sn99Cu1 DIN EN 29 453		F-SW32 Type 1.1.3.B NF EN 29 454.1																																																	
1.) <u>Manufacturer:</u> <u>Address:</u>	EDSYN GMBH EUROPA Finkenweg 2 D 97892 Kreuzwertheim Tel.: 09342 - 6413 Fax: 09342 - 6417																																																			
2.) <u>COMPOSITIONS / INFORMATION ON INGREDIENTS</u>	<table><tr><td>Product (metal)</td><td>Symbol</td><td>CAS-No..</td><td>EC-No.</td><td>R-Phrases</td><td>S-Phrases</td></tr><tr><td>Tin</td><td>Sn</td><td>7440-31-5</td><td>231-141-8</td><td>-</td><td>-</td></tr><tr><td>Copper</td><td>Cu</td><td>7440-50-8</td><td>231-159-6</td><td>-</td><td>-</td></tr></table> <p>Alloys composition Sn99,3Cu0,7</p> <table><tr><td>Tin %</td><td>Lead %</td><td>Copper %</td><td>Silver %</td><td>Bismuth %</td><td>Antimony %</td></tr><tr><td>99,3</td><td>-</td><td>0,7</td><td>-</td><td>-</td><td>-</td></tr></table> <p>Incorporated flux composition</p> <table><tr><td>Product</td><td>CAS-No.</td><td>EC-No.</td><td>R-Phrases</td><td>S-Phrases</td><td>%</td></tr><tr><td>Modified rosin</td><td>-</td><td>-</td><td colspan="2">Not classified hazardous</td><td rowspan="2">1,6 %</td></tr><tr><td>Organic acid</td><td>124-04-9</td><td>204-673-3</td><td>Xi R36</td><td>S2</td></tr></table>					Product (metal)	Symbol	CAS-No..	EC-No.	R-Phrases	S-Phrases	Tin	Sn	7440-31-5	231-141-8	-	-	Copper	Cu	7440-50-8	231-159-6	-	-	Tin %	Lead %	Copper %	Silver %	Bismuth %	Antimony %	99,3	-	0,7	-	-	-	Product	CAS-No.	EC-No.	R-Phrases	S-Phrases	%	Modified rosin	-	-	Not classified hazardous		1,6 %	Organic acid	124-04-9	204-673-3	Xi R36	S2
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3.) <u>HAZARDS IDENTIFICATION</u>  Hazard description:  Information concerning particular hazards for human and environment:  Prevention:  GHS label elements:	<p>The product is not classified as dangerous. This product is nit classified as flammable. See the recommendations concerning the other products in the room.</p> <p>The product could cause burns during soldering. Its use during soldering may produce or release fumes which can be sensitizing to asthmatic workers.</p> <p>It is recommended to wear safety glasses, protective gloves, to wash hands after use and to work with a good ventilation of area, and suitable fumes extraction system locally installed.</p> <p>None.</p>																																																			
4.) <u>FIRST AID MEASURES</u>  <u>Dusts and fumes</u>  General information:	<p>Take affected persons out into the fresh air. Take affected persons out of danger area and lay down.</p>																																																			



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<p><b>After inhalation:</b></p> <p><b>After skin contact:</b></p> <p><b>After eye contact:</b></p> <p><b>After swallowing:</b></p> <p><b>Ingestion:</b></p>	<p>Take affected persons into fresh air. If irritation persists, get medical attention. In case of large quantities inhaled, remove from the exposure area. Wash nose and lips.</p> <p>Immediately wash with water and soap and rinse thoroughly. If skin irritation persists, get medical attention. If burns should occur from molten metal, treat for burn and get medical assistance if necessary. No known hazardous reaction, wash with water and soap.</p> <p>Rinse opened eye for several minutes under running water. Get medical attention if irritation occurs. Flush thoroughly with clear water; in case of persisting irritation seek an ophthalmologist.</p> <p>Call for a doctor immediately. Do not induce vomiting unless directed to do so by medical personnel.</p> <p>Seek medical advice.</p>
<p><b>5.) <u>FIRE FIGHTING MEASURES</u></b></p> <p><b>Non flammable product</b></p> <p><b>Suitable extinguishing agents:</b></p> <p><b>Extinguishing agents to avoid:</b></p> <p><b>Special hazards caused by the substance, its products of combustion or resulting gases:</b></p> <p><b>Protective equipment:</b></p>	<p>Dry chemical powder, water spray or foam.</p> <p>Do not use water jet on fire where molten metal is present.</p> <p>Molten metal produces fumes or vapours that may be sensitizing to asthmatic persons. Molten metal reacts violently with oxidising agents.</p> <p>Wear appropriate self-contained breathing apparatus. Do not inhale combustion gases. Wear full body protective clothing.</p>
<p><b>6.) <u>ACCIDENTAL RELEASE MEASURES</u></b></p> <p><b>Person related safety precautions:</b></p> <p><b>Measures for environmental protection:</b></p> <p><b>Measures for cleaning/collecting:</b></p> <p><b>Additional information:</b></p>	<p>Remove persons from danger area. Wear protective equipment. Keep unprotected persons away. Use respiratory protective device against the effects of fumes/dust: Ensure adequate ventilation. Prefer handle with gloves.</p> <p>Do not allow to enter sewers / surface or ground water.</p> <p>After cooling, collect the released product and store in sealed containers.</p> <p>Exposure levels indicated in section 8 are relevant to these and other operations. See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.</p>
<p><b>7.) <u>HANDLING AND STORAGE</u></b></p> <p><b>Handling:</b></p>	<p>Due to its high density, the product is heavy. Avoid the fall of the product. Wear protective shoes. S37 = Wear suitable gloves. Wash hands after handling.</p>



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<b>Storage:</b>	Set up a dust, fumes or vapor collection system at the point of emission. Use closed or hood covered systems for thermal operation, avoid blow torch cutting (emission of toxic vapors).  On spool, in original cardboard, at room temperature, keep away from inclemency. S2 = Keep out of the reach of children. S13 = Keep away from food, drink and animal feedingsstuffs. Stow away from foodstuffs. Avoid the possibility of contact with acids.																					
<b>Conditioning materials:</b>	Recyclable containers.																					
8.) <u><b>EXPOSURE CONTROLS/PERSONAL PROTECTION</b></u>																						
8.2) <b>Exposure control:</b>	Actueal limit value/max. concentration (Germany) of working place: <table><tr><th>Product</th><th>max. concentration (Germany) of working place</th><th>Limit value</th></tr><tr><td>Tin</td><td>0,1 mg/m³</td><td>0,2 mg/m³</td></tr><tr><td>Copper</td><td>0,2 mg/m³ (fume) 1 mg/m³ (dust)</td><td>2 mg/m³ (dust)</td></tr></table> Permissible air concentration (mg/m3) <table><tr><th>Product</th><th>PEL</th><th>REL</th><th>TLV</th></tr><tr><td>Tin</td><td>2,0</td><td>2,0</td><td>2,0</td></tr><tr><td>Copper</td><td>1 0,1 (fume)</td><td>1 0,1 (fume)</td><td>1 0,2 (fume)</td></tr></table>	Product	max. concentration (Germany) of working place	Limit value	Tin	0,1 mg/m³	0,2 mg/m³	Copper	0,2 mg/m³ (fume) 1 mg/m³ (dust)	2 mg/m³ (dust)	Product	PEL	REL	TLV	Tin	2,0	2,0	2,0	Copper	1 0,1 (fume)	1 0,1 (fume)	1 0,2 (fume)
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<b>Additional information:</b>	PEL = Permissible exposure limit (OSHA) REL = Recommended exposure limit (NIOSH) TLV = threshold Limit value (ACGIH) OSHA = Occupational Safety and Health Administration ACGIH = American Conference of Governmental Industrial Hygienists NIOSH = National Institute for Occupational Safety and Health																					
8.2) <b>Personal protective equipment:</b>																						
<b>Respiratory protection:</b>	Suitable fumes extraction system must be locally installed. Take an air purifying respirator for limited operations where permissible exposure levels may be exceeded.																					
<b>Protection of hands:</b>	Cotton gloves are recommended.																					
<b>Eye protection:</b>	Safety glasses are recommended.																					
<b>Body protection:</b>	Protective work clothing is recommended: cotton blouse.																					
<b>General protective and hygienic measures:</b>	The usual precautionary measures are to be adhered to when handling chemicals; do not smoke and eat at work place. Keep away from foodstuffs, beverages and feet. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes. Avoid contact with the eyes and skin. Strict hygiene requirements will be prescribed at the workplace.																					



9.) <b><u>PHYSICAL AND CHEMICAL PROPERTIES</u></b>  Form: State: Colour: Application:	Wire Solid Silver For soft soldering <table><tr><td>Properties</td><td>T° solidus (°C)</td><td>T° liquidus (°C)</td><td>Density (g/cm³)</td></tr><tr><td>Sn99,3Cu0,7</td><td colspan="2">E 227</td><td>7,30</td></tr></table> <table><tr><td>Properties of fluxes</td><td>Acid number (mg/g)</td><td>Chloride content (%)</td></tr><tr><td>F-SW32</td><td>392 à 432</td><td>0</td></tr></table>	Properties	T° solidus (°C)	T° liquidus (°C)	Density (g/cm³)	Sn99,3Cu0,7	E 227		7,30	Properties of fluxes	Acid number (mg/g)	Chloride content (%)	F-SW32	392 à 432	0
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10.) <b><u>STABILITY AND REACTIVITY</u></b>  Stability:  Conditions to avoid:  Hazardous decomposition products:  Materials to avoid:	Stable under normal conditions of use and storage.  Strong oxidisers may cause violent reaction. Mechanical and thermal operations giving rise to dusts or fumes without appropriate ventilation.  No hazardous decomposition under normal conditions of use.  Due to the toxic properties of lead salts, avoid accidental contact with acids, particularly with acetic acid.														
11.) <b><u>TOXICOLOGICAL INFORMATION</u></b>  Eye contact:  Skin contact:  Inhalation:  Acute toxicity:  Toxicological analyses:	May cause eye irritation due to the fumes during soldering.  May cause skin irritation in case of flux projections or fumes during soldering. It is recommended to wear cotton gloves to prevent burns by projections.  Use of product during soldering may produce or release fumes due to heated rosin, which can be sensitizing to asthmatic workers.  No adverse health effect is expected under normal conditions of use.  This good is not concerned in its final shape.														
12.) <b><u>ECOLOGICAL INFORMATION</u></b>  General notes:	Do not allow product to reach ground water, water course or sewage system. Sn/Cu alloy is a particularly corrosion proof metal.														
13.) <b><u>DISPOSAL COSINDERATIONS</u></b>  Surplus and wastes:  Contaminated packaging:	Disposal must be made according to official regulations.  Collect all wastes.  Never use packaging for another purpose.														



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<p><b>14.) <u>TRANSPORT INFORMATION</u></b></p> <p><b>DOT regulations:</b></p> <p><b>Land transport ADR/RID (cross-border):</b></p> <p><b>Maritime transport IMDG:</b></p> <p><b>Air transport ICAO-TI and IATA-DGR:</b></p>	<p>Hazard class: - Not regulated.</p> <p>ADR/RID class: - Not regulated.</p> <p>IMDG class: - Not regulated.</p> <p>ICAO/IATA class: - Not regulated.</p> <p>Not classified as dangerous goods by any international codes or agreements (RID/ADR, IMDG, IATA)</p>
<p><b>15.) <u>REGULATORY INFORMATION</u></b></p>	<p>The product does not require any hazard warning label in accordance with EC directives/regulations on dangerous substances.</p>
<p><b>16.) <u>OTHER INFORMATION</u></b></p> <p><b>Abbreviations and acronyms:</b></p>	<p>This material safety data sheet is entirely written in accordance with regulations in force.</p> <p>The relevant data sheet is applicable here. The information contained here in is based on data considered accurate and is offered at no charge. Our aim, by providing the above information which reflects the current status of our knowledge and experience is to describe our product in terms of safety requirements. Liability is expressly disclaimed for loss or injury arising out of use of this information or the use of any materials designated. Supplementary copies of this data sheet are available on request.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulations Concerning the International Transport of Dangerous Goods by Rail IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) GHS: Globally Harmonized System of Classification and Labeling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)</p>

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