



14.02.2013

Material Safety Data Sheet - according to directive 91/155/EWG

INTERNATIONAL STANDARD NORM ISO 11014-1

Trade name: SU35100	Solder wire Sn62Pb36Ag2 DIN EN 29 453	Flux F-SW 34 NF EN 29 454.1																											
1.) MANUFACTURER Address:	EDSYN GMBH EUROPA Finkenweg 2 Tel.: 09342 - 6413 D 97892 Kreuzwertheim Fax: 09342 - 6417																												
2.) HAZARDS IDENTIFICATION	The information in this section is applicable on all mentioned identified uses in this SDS.																												
2.1) Classification and general hazards R-phrases: Fire hazard: NFPA-code:	Not classified dangerous in accordance with Directives 67/548/EEC and 1999/45/EC. In normal conditions of use, the substance cannot be released because of the form in which the product is placed on the market. (Wire does contain a warning symbol for handling: Warning! Contains lead Xn: Harmful). None 1-1-0																												
2.2) Environmental hazards Ecology - general: Ecology - water: Ecology - waste materials:	Not biodegradable and may therefore not be disposed in the environment. Flux used for solder wire is readily biodegradable - Metals are not biodegradable and may therefore not be disposed in the environment. Do not discharge into surface water - Do not discharge into the sewer - Recycle/reuse - Packaging containing residues of or contaminated by - dangerous substances - LWCA (the Netherlands): KGA category 05 - Hazardous waste (91/689/EEC).																												
2.3) Other dangers Other dangers:	This product may become hazardous in use and the information in this data sheet reflects the hazards associated with solder operations. Increased danger of lead pollution if the metal is overheated or if the metal is oxidized (risk of formation of dust and fumes). Lead oxides are classified as toxic to reproduction (EC). Swallowing of metal alloys is harmful to health.																												
3.) COMPOSITION / INFORMATION ON INGREDIENTS Name: EC N°: REACH:	F-SW-34 SnPb(Ag) All components are EINECS listed. All components are pre-registered according to REACH regulations.																												
<table border="1"><thead><tr><th>Components</th><th>CAS N°</th><th>EC N°</th><th>WEIGHT %</th><th>Classification</th></tr></thead><tbody><tr><td>lead, in massive state</td><td>7439-92-1</td><td>231-100-4</td><td>*)</td><td>-</td></tr><tr><td>tin</td><td>7440-31-5</td><td>231-141-8</td><td>*)</td><td>-</td></tr><tr><td>silver</td><td>7440-22-4</td><td>231-131-3</td><td>*)</td><td>-</td></tr><tr><td>flux incorporated</td><td>-</td><td>-</td><td>1.4 ± 0.2</td><td>-</td></tr></tbody></table>					Components	CAS N°	EC N°	WEIGHT %	Classification	lead, in massive state	7439-92-1	231-100-4	*)	-	tin	7440-31-5	231-141-8	*)	-	silver	7440-22-4	231-131-3	*)	-	flux incorporated	-	-	1.4 ± 0.2	-
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<p>4.) <u>FIRST AID MEASURES</u></p> <p>4.1) Effects and symptoms Symptoms / injuries: Symptoms / injuries after eye contact:</p> <p>Symptoms / injuries after skin contact: Symptoms / injuries after inhalation: Symptoms / injuries after ingestion:</p> <p>4.2) First aid measures 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>4.3) Medical advice</p>	<p>The information in this section is applicable on all mentioned identified uses in this SDS.</p> <p>Handle in accordance with good industrial hygiene and safety practice. 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. The melted product adheres to the skin and causes burns. Damage of the lungs can occur with chronic lead poisoning. Symptoms similar to those listed under inhalation, as well damage to the kidneys.</p> <p>Remove the victim into fresh air – Respiratory problems: consult a doctor/medical service. 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. Rinse immediately with plenty of water – Take victim to an ophthalmologist if irritation persists. Dilute stomach contents with water or milk. Do NOT induce vomiting. Ask for medical advice.</p> <p>No information available.</p>
<p>5.) <u>FIRE FIGHTING MEASURES</u></p> <p>General measures: Extinguishing agents – fire fighting instructions:</p> <p>Fire hazard: Reactivity hazard: Personal protection (Emergency response):</p> <p>Other information (fire fighting):</p>	<p>The information in this section is applicable on all mentioned identified uses in this SDS.</p> <p>Not applicable for solder wire.</p> <p>Never use water near molten metal. FIRE EXTINGUISHING MEDIA D powder Dry sand None Upon burning: formation of metallic fumes/vapours.</p> <p>Gloves – Heat resistant gloves – Heat/fire exposure: compressed air/oxygen apparatus. Massive metal and the oxides are not combustible.</p>
<p>6.) <u>ACCIDENTAL RELEASE MEASURES</u></p> <p>6.1) Protective measures General measures:</p> <p>6.2) Environmental measures</p> <p>6.3) Disposal Disposal:</p> <p>Methods for cleaning:</p> <p>6.4) Other information</p>	<p>The information in this section is applicable on all mentioned identified uses in this SDS.</p> <p>Not applicable for solder wire.</p> <p>No information available.</p> <p>Carefully collect the spill/leftovers – Collect all waste in suitable and labelled containers and dispose according to local legislation.</p> <p>If melted: allow liquid to solidify before taking it up – Do not discharge into groundwater, surface water or sewerage.</p> <p>No information available.</p>
<p>7.) <u>HANDLING AND STORAGE</u></p>	



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<p>7.1) Handling Handling the product:</p> <p>7.2) Storage Storage area: Maximal storage time: LGK Storage class:</p> <p>7.3) Special use(s) and requirements</p>	<p>Solder alloys containing lead do not give lead fumes at normal soldering temperatures, only at t° above 500° C. Vapours produced during soldering operations. Avoid breathing dust/fume. Work under local exhaust / ventilation. Smoking, eating and drinking should be prohibited in areas of storage and use.</p> <p>Store at ambient temperature. Store in a dry area. 2 years LGK 13</p> <p>No information available.</p> <p>Handling and storage information is applicable on all mentioned identified uses in this SDS.</p> <p>Consistency of data in the SDS with CSR is considered, as far as the information was available at the time of compilation (cfr revision date and version number).</p>
<p>8.) <u>EXPOSURE CONTROLS / PERSONAL PROTECTION</u></p> <p>8.1) Exposure information</p> <p>Component: CAS N°: VME (mg/m³): TLV-TWA (mg/m³):</p> <p>Component: CAS N°: Limit value name: Limit value (mg/m³): VME name: VME (mg/m³): VLE (mg/m³): TLV name: TLV-TWA (mg/m³):</p> <p>Component: CAS N°: Limit value name: Limit value (mg/m³): MAK Short time value (mg/m³): MAC name: MAC (mg/m³): VME name: VME (mg/m³): TLV name: TLV-TWA (mg/m³):</p> <p>8.2) Exposure control – Risk management measures</p>	<p>Lead, inorganic dust and fumes 7439-92-1 0.15 0.05</p> <p>Tin 7440-31-5 Tin (metal) 2 Etain 0.1 0.2 Tin Metal 2</p> <p>Silver 7440-22-4 Silver (metal) 0.1 0.8 E/15/4x Silver 0.1 Argent (métal) 0.1 Silver Metal 0.1</p>



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<p>Respiratory protection:</p> <p>Hand protection:</p> <p>Eye protection:</p> <p>Body protection:</p> <p>Handling the product:</p> <p>Personal protection (Material-Handling):</p> <p>8.3) Environmental exposure control – Risk management measures</p> <p>8.4) Technical risk management measures</p>	<p>Work under local exhaust/ventilation. In case of insufficient ventilation wear suitable respiratory equipment.</p> <p>Heat resistant gloves.</p> <p>In case of risky circumstances: safety glasses or face shield.</p> <p>Wear suitable protective clothing and gloves.</p> <p>Solder alloys containing lead do not give lead fumes at normal soldering temperatures, only at t° above 500° C. Vapours produced during soldering operations. Avoid breathing dust/fume. Work under local exhaust / ventilation. Smoking, eating and drinking should be prohibited in areas of storage and use.</p> <p>Gloves</p> <p>Heat resistant gloves if handling hot metal</p> <p>Safety glasses</p> <p>No information available.</p> <p>No information available.</p>
<p>9.) <u>PHYSICAL AND CHEMICAL PROPERTIES</u></p> <p>9.1) General information</p> <p>Appearance:</p> <p>State of aggregation:</p> <p>Odour:</p> <p>Colour:</p> <p>9.2) Important health, safety & environmental info</p> <p>Flashpoint:</p> <p>Relative density:</p> <p>Melting point:</p> <p>9.3) Other information</p> <p>Solubility in water:</p> <p>Other properties:</p>	<p>Solid wire</p> <p>Solid</p> <p>Odourless</p> <p>Silvery-white to grey</p> <p>(Flux) 170° C</p> <p>Sn62PbAg2: 8.5 g/cm³</p> <p>IEC-EN-61190-1-3: Sn62Pb36Ag2: 179° C</p> <p>Insoluble</p> <p>Insoluble in water. Not biodegradable and may therefore not be disposed in the environment.</p> <p>All properties are determined in accordance with the specifications laid down in the Commission Regulation on testing methods referred to in Article 13 paragraph 3 or any other comparable method.</p>
<p>10.) <u>STABILITY AND REACTIVITY</u></p> <p>10.1) Stability</p> <p>Instability:</p> <p>10.2) Conditions to avoid</p> <p>Conditions to avoid:</p> <p>Reactivity hazard:</p> <p>10.3) Materials to avoid</p> <p>10.4) Hazardous decomposition products</p>	<p>The information in this section is applicable on all mentioned identified uses in this SDS.</p> <p>Stable under normal conditions.</p> <p>High temperatures. Will emit toxic metallic oxides.</p> <p>Upon burning: formation of metallic fumes/vapours.</p> <p>Slightly reactive with oxidizing agents and strong acids.</p> <p>No information available.</p>
<p>11.) <u>TOXICOLOGICAL INFORMATION</u></p>	<p>The information in this section is applicable on all mentioned identified uses in this SDS.</p>



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<p>11.1) Toxicity General toxicity:</p> <p>Toxicity hazard:</p> <p>Component: LD50 oral rat: LD50 dermal rat:</p> <p>11.2) Effects and symptoms Symptoms / injuries: Symptoms / injuries after skin contact: Symptoms / injuries after inhalation: Symptoms / injuries after ingestion:</p> <p>Symptoms / injuries after eye contact:</p>	<p>Pregnant women must avoid inhalation or skin contact in any circumstance.</p> <p>When lead is ingested most of it passes through the body unabsorbed, and is eliminated in the feces. The greater portion of the lead that is absorbed is caught by the liver und excreted, in part in the bile.</p> <p>silver > 10000 mg/kg > 2000 mg/kg</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>Damage of the lungs can occur with chronic lead poisoning.</p> <p>Symptoms similar to those listed under inhalation, as well damage to the kidneys.</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>12.) <u>ECOLOGICAL INFORMATION</u></p> <p>12.1) Ecotoxicity a) LC50 / EC50 Component: EC50 Daphnia 1: EC50 other aquatic organisms 1:</p> <p>b) BCF Component: BCF fishes 2:</p> <p>c) TLM</p> <p>12.2) Mobility Ecology - general: Ecology - waste materials:</p> <p>Ecology - water:</p> <p>Other properties:</p> <p>12.3) Persistence and degradability Component: Log Pow: WGK remark:</p> <p>Component: WGK remark:</p> <p>Component: WGK remark:</p> <p>12.4) Bioaccumulation</p>	<p>The information in this section is applicable on all mentioned identified uses in this SDS.</p> <p>tin 1,5 mg/l (504 h, DAPHNIA MAGNA) 21,23 mg/l (96 h, TUBIFEX TUBIFEX) 42 mg/l (48 h, DAPHNIA MAGNA)</p> <p>tin < 0,00036 mg/g (PISCES, DRY WEIGHT)</p> <p>No information available.</p> <p>Not biodegradable and may therefore not be disposed in the environment. Do not discharge into surface water - Do not discharge into the sewer – Recycle/reuse – Packaging containing residues of or contaminated by – dangerous substances - LWCA (the Netherlands): KGA category 05 – Hazardous waste (91/689/EEC).</p> <p>Flux used for solder wire is readily biodegradable - Metals are not biodegradable and may therefore not be disposed in the environment. Insoluble in water. Not biodegradable and may therefore not be disposed in the environment.</p> <p>lead, in massive state 0,73 (estimated) 2</p> <p>tin No water pollutant (classification in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)).</p> <p>silver 3</p> <p>No information available.</p>



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<p>12.5) Results of PBT assessment</p> <p>12.6) Other information Other information (adverse effects):</p>	<p>No information available.</p> <p>Ecological information is not available.</p>
<p>13.) <u>DISPOSAL CONSIDERATIONS</u></p> <p>Ecology - general: Ecology - waste materials:</p> <p>EURAL:</p>	<p>Not biodegradable and may therefore not be disposed in the environment. Do not discharge into surface water - Do not discharge into the sewer - Recycle/reuse – Packaging containing residues of or contaminated by – dangerous substances - LWCA (the Netherlands): KGA category 05 – Hazardous waste (91/689/EEC). 10 04 02* - dross and skimmings from primary and secondary production.</p>
<p>14.) <u>TRANSPORT INFORMATION</u></p> <p>14.1) ADR (Road transport) ADR transport regulations: State during transport (ADR-RID): Proper Shipping Name:</p> <p>14.2) RID (Railway transport) RID class: RID transport regulations: Proper Shipping Name:</p> <p>14.3) ADNR (Inland waterways shipping) ADNR class: Proper Shipping Name:</p> <p>14.4) IMDG (Sea transport) IMDG transport regulations: Proper Shipping Name:</p> <p>14.5) ICAO / IATA (Air transport) ICAO transport regulations: Proper Shipping Name:</p> <p>Additional rules to be obtained at EDSYN GMBH EUROPA</p> <p>Remark:</p>	<p>Not subject Rail and road transport: not subject to ADR-RID Non-hazardous goods</p> <p>Not subject Not subject Non-hazardous goods</p> <p>Not subject Non-hazardous goods</p> <p>Not subject Non-hazardous goods</p> <p>Not subject Non-hazardous goods</p> <p>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) Components indicating danger classification</p> <p>15.2) Classification and labelling</p> <p>R-phrases:</p> <p>Extra phrases:</p>	<p>No information available.</p> <p>Not classified dangerous in accordance with Directives 67/548/EEC and 1999/45/EC. In normal conditions of use, the substance cannot be released because of the form in which the product is placed on the market. Metallic lead is not subject to labelling.</p>



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<p>15.3) Compliancy additional legislation</p>	<p>Alloys in form of massive metals do not need to be labelled, even if the substances are classified as dangerous to human and the environment.</p> <p>Not classified dangerous in accordance with Directives 67/548/EEC and 1999/45/EC.</p>
<p>16.) OTHER INFORMATION</p> <p>R-phrases components Other information (lead):</p> <p>SDS Version: Review date SDS: SDS revision reason: Other information:</p>	<p>R20/22: Harmful by inhalation and if swallowed R33: Danger of cumulative effects R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment R61: May cause harm to the unborn child R62: Possible risk of impaired fertility</p> <p>2.0/ED 21/12/2009 Reach regulation 1907/2006 Annex II Intrastat code 8311 30 00</p> <p>The information in this Material Safety Data Sheet (SDS) is believed to be correct as of the date 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.</p>