



28. Juni 2007

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

**INTERNATIONAL STANDARD NORM ISO 11014-1**

<b>Trade Name: CR 44</b>	<b>SMD Solder paste Sn62PbAg2</b> <b>Flux F-SW 32</b> <b>DIN EN 29 453</b> <b>NF EN 29 454.1.2.3</b>																																
<b>1.) <u>Manufacturer:</u></b> <b>Address:</b>	<b>EDSYN GMBH EUROPA</b> Finkenweg 2                              Tel.: 09342 - 6413 D 97892 Kreuzwertheim              Fax: 09342 - 6417																																
<b>2.) <u>COMPOSITIONS / INFORMATION OF THE COMPONENTS</u></b>  <b>2.1 Description:</b>  <b>2.2 Singular Composition:</b>   <b>2.3 Hazardous ingredients:</b>  <b>2.4 Additional notice:</b>	Solder pastes are a mixture of metal powder alloy with a flux based on resin with activators and thixotropic agents.  <table border="0"> <thead> <tr> <th>Alloys:</th> <th>Codes/CAS-no</th> <th>Concentration</th> <th>R Phrases:</th> </tr> </thead> <tbody> <tr> <td>Sn</td> <td>7440-31-5</td> <td>51 - 56%/weight</td> <td></td> </tr> <tr> <td>Pb</td> <td>7439-92-1</td> <td>30 - 36%/weight</td> <td></td> </tr> <tr> <td>Ag</td> <td>7440-22-4</td> <td>0 - 2%/weight</td> <td></td> </tr> <tr> <td>and:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Rosin mixture</td> <td>8050-09-7</td> <td>1 - 3,5%/weight</td> <td></td> </tr> <tr> <td>Terpenes mixture</td> <td>98-55-5</td> <td>6 - 9%/weight</td> <td></td> </tr> <tr> <td>Thixotropic agent mixture</td> <td></td> <td>2,5 - 4%/weight</td> <td></td> </tr> </tbody> </table> The solder paste contents lead in alloy with tin.  Rules and recommendations on use of lead or lead-containing materials have to be minded.	Alloys:	Codes/CAS-no	Concentration	R Phrases:	Sn	7440-31-5	51 - 56%/weight		Pb	7439-92-1	30 - 36%/weight		Ag	7440-22-4	0 - 2%/weight		and:				Rosin mixture	8050-09-7	1 - 3,5%/weight		Terpenes mixture	98-55-5	6 - 9%/weight		Thixotropic agent mixture		2,5 - 4%/weight	
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<b>3.) <u>POSSIBLE DANGERS</u></b>  <b>3.1 Safety risks:</b>  <b>3.2 Environment:</b> <b>3.3 Notice:</b>	Lead fumes can leak out at temperatures higher than 500°C. Dependent on humanly condition could flux irritates the skin or mucous membranes. Indication "Xi" R-36/38 and 42/43. Water hazarding, because lead containing. At processing under normal conditions and under surveillance of general hygienic rules no harm is caused by the product.																																
<b>4.) <u>FIRST AID MEASURES</u></b>  <b>4.1 Inhalation:</b> <b>4.2 Skin:</b> <b>4.3 If swallowed:</b> <b>4.4 Eyes:</b>	After inhalation of solder fumes: bring to fresh air. After contact with skin wash away with warm water and soap. If swallowed: consult a doctor. After contact with eyes: wash out with much water for at least 15 minutes, consult a doctor.																																
<b>5.) <u>FIRE FIGHTING MEASURES</u></b>  <b>5.1 Adequate extinguishing material:</b> <b>5.2 Inadequate extinguishing material:</b> <b>5.3 Safety risks:</b> <b>5.4 Special safety equipment:</b>	Foam, powder, CO <sub>2</sub> . Water At temperatures over 500°C lead-fumes can leak out. At bigger fires respiration protection is recommended.																																



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<p><b>6.) <u>MEASURES AT LEAKING OUT</u></b></p> <p><b>6.1 Personal protection:</b>  <b>6.2 Environmental measures:</b>  <b>6.3 Procedures for cleaning:</b></p>	<p>No special measures required.          Avoid getting into water or drinking water.          Remove and dispose mechanical with spatula, cloth etc. Disposal according to the rules for lead or lead-containing products.</p>
<p><b>7.) <u>HANDLING AND STORAGE</u></b></p> <p><b>7.1 Handling</b>  <b>7.1.1 Measures for safety handling:</b>  <b>7.1.2 Personal protective equipment:</b>  <b>7.1.3 Using advices:</b></p> <p><b>7.2 Storage:</b>  <b>7.2.1 Conditions of storage:</b></p>	<p>Avoid leaking into canalisation, inshore waters or earth.          Avoid contact with eyes, skin and clothes as well as inhalation of fumes.          At use of flame soldering flux can catch fire.</p> <p>Store cool and dry in closed original containers.          No storage together with food.</p>
<p><b>8.) <u>EXPOSITION AND PERSONAL SAFETY EQUIPMENT</u></b></p> <p><b>8.1 Occupational exposure standards:</b>  <b>8.2 Personal protective equipment:</b>  <b>8.3 Personal protection:</b>  <b>Inhalation protection:</b>  <b>Hand protection:</b>  <b>Eye protection:</b>  <b>Body protection:</b></p>	<p>Of principle a sufficient ventilation is foreseen at all soldering works.</p> <p>Components with working place specific to be controlled limits do not exist.</p> <p>Not necessary          Gloves (Rubber, Latex)          Safety glasses          Not necessary</p>
<p><b>9.) <u>PHYSICAL AND CHEMICAL PROPERTIES</u></b></p> <p><b>Form:</b>  <b>Colour:</b>  <b>Odour:</b></p> <p><b>Melting point:</b>  <b>Boiling point:</b>  <b>Flaming point:</b>  <b>Flammability:</b>  <b>Explosion danger:</b>  <b>Steam pressure:</b>  <b>Density:</b>  <b>Solubility in water:</b>  <b>pH value:</b>  <b>Viscosity:</b>  <b>Solvent separation test:</b>  <b>Solvent content:</b></p>	<p>pasty          metallic grey          specific, very weak</p> <p>Resin &gt; 80°C, Metal &gt; 183°C          n.a.          n.a.          flammable with flame          n.a.          n.a.          n.a.          &gt;3          n.a. (Flux completely)          n.a. (Flux 4-6)          400,000 – 1,000,000 cP.s          n.a.          4-6%/Gew</p>
<p><b>10.) <u>STABILITY AND REACTIVITY</u></b></p> <p><b>Reactivity:</b>  <b>Stability:</b></p>	<p>Dangerous reactions are not known.          The product is stable under normal conditions.</p>



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<b>11.) <u>TOXICOLOGICAL INFORMATION</u></b>	Under disadvantageous conditions (Temperature, Oxidation, Acids) heavy metal ions (Lead) can be set free.
<b>12.) <u>ECOLOGICAL INFORMATION</u></b>  <b>Persistence/Degradability:</b>	Lead and lead containing products must not get into the environment. The contents of the solder paste without metal can be decomposed very easy.
<b>13.) <u>NOTICE FOR DISPOSAL</u></b>  <b>Product disposal:</b>  <b>Waste key number:</b>	Lead and lead containing products are special waste and have to be disposed according to national and local regulations.  <b>EAK 120 104</b> Bigger amounts are to be conducted to recycling.
<b>14.) <u>TRANSPORT INFORMATION</u></b>	The product is authorized for all ways and means of transport.
<b>15.) <u>REGULATORY INFORMATIONS</u></b>  <b>Marking according to EU measures: Dangers icon:</b>  <b>R-Phrases:</b>  <b>S-Phrases:</b>	Xi  R 36/38      Irritating skin and eyes. R 42/43      Sensitization through inhalation and contact with skin.  S 2            Shall not get into children's hands. S 23           Don't inhale smoke and fumes. S 24/25       Avoid contact with eyes or skin. S 36/37       Wear safety gloves or glasses.  TRGS 505      Be aware of lead content.
<b>16.) <u>OTHER INFORMATION</u></b>	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.