

# **MATERIAL SAFETY DATA SHEET**

## **Recommendations For The Control Of Substances That Could Constitute A Hazard To Health And Safety**

### **LEAD FREE FLUX CORED SOLDER WIRE**

#### **1. PRODUCT & COMPANY IDENTIFICATION.**

Commercial Name:-                      **Lead Free Flux Cored Solder Wire 99C GR700**

Supplier :-                                      Antex (Electronics) Limited  
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#### **2.COMPOSITION / INFORMATION ON INGREDIENTS.**

Note: Solder Wire is considered to be an article and is not subject to the Classification (Hazard Information and Packaging for Supply) Regulations 2002, because it is not hazardous as supplied. However, this product may become hazardous in use and the information included in this data sheet reflects the hazards associated with solder operations.

<b>Material Name</b>	<b>CAS Number</b>	<b>Proportion %</b>
Tin	7740-31-5	Remainder
Copper	7440-50-8	0.60 – 0.80
Rosin	-	2.4 – 3.0 Wt %

#### **Occupational exposure limits.**

Rosin flux fume (as total resin acids) WEL: 0.05mg/m<sup>3</sup> 8h TWA  
WEL: 0.15mg/m<sup>3</sup> 15min  
Extraction is necessary to remove fumes evolved during soldering.

#### **3 HAZARD IDENTIFICATION**

The flux fumes given off during soldering will irritate the eyes, nose and respiratory system. Prolonged or repeated exposure to flux fumes may cause an asthmatic reaction in sensitive individuals. Contact with flux residues may cause skin irritation and sensitisation.

#### **4 FIRST AID MEASURES.**

- Inhalation: Fumes given off by fluxes may irritate the nose and throat. Remove patient to fresh air. obtain medical attention if there is any respiratory distress.
- Skin Contact: Wash hands with soap and water after handling solder. If any skin irritation develops seek medical attention.
- Eye Contact: Flux fumes may irritate the eyes. The flux may spit during soldering. Flush immediately with plenty of water for at least 15 minutes. In cases where spitting flux has entered the eye seek medical attention.
- Oral Ingestion: Drink clean water and seek medical aid.

#### **5 FIRE FIGHTING MEASURES**

Use carbon dioxide, dry chemicals or sand to surround the fire. High temperatures may produce toxic fumes and vapours containing heavy metals. Avoid breathing fumes by wearing suitable respirator and protective clothing. Allow spill to solidify and cool. Take care not to use water on molten metal. If necessary, damp the spill area to prevent entry of molten metal into drains.

#### **6 ACCIDENTAL RELEASE MEASURES.**

- Personal precautions: Not applicable
- Environmental precautions: Not applicable
- Methods for cleaning up: Not applicable

#### **7 HANDLING AND STORAGE.**

- Handling: Do not eat, drink or smoke during use. Wash hands after handling solder wire.
- Storage: Store away from oxidizing agents and acids. Store in a cool dry area and keep in the original boxes to be stored away from food and drink.

## **8 EXPOSURE CONTROLS AND PERSONAL PROTECTION.**

- Eyes: Safety glasses should be worn to protect the eyes.
- Skin: Gloves should be worn when handling solder products.
- Respiratory: When soldering is being done fume extraction equipment should be in operation.

## **9 PHYSICAL AND CHEMICAL PROPERTIES.**

- Appearance: Glossy silver metallic solid. Contains flux which is transparent light yellow in colour.
- Odour: Rosin odour when in melted form.
- Boiling Point: Not determined.
- Melting Point: 227°C (Flux melts at 150-210°C)
- Flash Point: None
- Vapour Pressure: None
- Solubility in Water: Insoluble
- Density: Approx 7.310 for solder alloy.
- Ph: Not applicable.

## **10 STABILITY AND REACTIVITY**

- Stability: Stable under normal conditions.
- Incompatible Material: Solder will react with oxides (for example hydrogen peroxide) If personnel are exposed to these types of gasses immediate medical attention should be sought.
- Hazardous Polymerization: This will not occur.

## **11 TOXICOLOGICAL INFORMATION**

<u>Acute Toxicity:</u>	The product does not present a risk at ambient temperatures. The flux fumes evolved during soldering will irritate the nose, throat and lungs. Repeated or prolonged exposure to flux fumes may cause an allergic affect which may lead to occupational asthma.
<u>Chronic Toxicity:</u>	There are no known chronic effects associated with the use of lead-free solder alloys.

## **12 ECOLOGICAL INFORMATION**

<u>Biodegradability:</u>	The product is not biodegradable.
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## **13 DISPOSAL CONSIDERATIONS**

Wherever possible unwanted solder should be re-cycled for recovery of metal. (See Grosvenor Electronics UK for re-cycling details). Uncontrolled disposal should be in accordance with local and national legislation. In the UK this is the Control of Pollution Act 1974, the Environmental Protection Act 1990 and the regulations made under them.

## **14 TRANSPORT INFORMATION**

ADR, IMDG, RID, ICAO AND IATA:	Not classified as hazardous for transportation.
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## **15 REGULATORY INFORMATION**

Classification according to the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. Solder alloy is considered to be an article and is not subject to the above regulations.

## **16 OTHER INFORMATION**

The Health and Safety at Work etc. Act 1974  
The Control of Substances Hazardous to Health Regulations 2002  
The Management of Health and Safety at Work Regulations 1992.

**The information presented in this safety data sheet is accurate to the best of knowledge and belief of Antex Electronics Ltd. As we cannot anticipate all conditions under which this information of our products or the products of other suppliers in combination with our products are used this safety data sheet cannot constitute the user's assessment of workplace risk. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes.**

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