Health and Safety Data Sheet

1. Identification of Substance/Preparation and of the Supplier

Description : CEL lead free solder wire containing rosin (colophony) free flux, sizes 18 and 22swg.

Part No./Code :

CEL Part No.	Anglia Order Code	Alloy
43C501D/1	681018 / 681118	Tin/Copper (Sn/Cu)
43C501F/1	681022 / 681122	Tin/Copper (Sn/Cu)
43D501D/1	681218 / 681318	Tin/Silver/Copper (Sn/Ag/Cu)
43D501F/1	681222 / 681322	Tin/Silver/Copper (Sn/Ag/Cu)

Supplier : Anglia (refer to sheet 4 for contact details).

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 1994, because it is not hazardous as supplied. However, this product may become hazardous in use and the information in this data sheet reflects the hazards associated with solder reflow operations.

Chemical Breakdown :

Alloy	Composition (typical values)	Flux Level	Halide Content
Sn/Cu	Tin 99% Copper 1%	2 - 2.5%	0.5% max.
Sn/Ag/Cu	Tin 95.2% Silver 3.8% Copper 1%	2.5 - 3%	0.5% max.

3. Hazards Identification

Inhalation of the flux fumes given off at soldering temperatures will irritate the nose, throat and respiratory system.

4. First Aid Measures

Inhalation : Flux fumes emitted during soldering will irritate the nose, throat and lungs. Remove patient to fresh air. Obtain medical attention if there is any respiratory distress.

Ingestion : Not relevant.

Skin Contact : Flux fumes produced during soldering may cause a irritation of exposed skin. Wash hands with soap and water after handling solder wire. If any skin irritation develops seek medical attention.

Eye Contact : Flux fumes may irritate the eyes. The fluxes may spit during soldering. Flush immediately with plenty of water. In cases where spitting flux has entered the eye seek medical attention.

5. Fire Fighting Measures

Extinguishers	: Suitable	-	dry chemical, carbon dioxide, water spray or foam.
	Unsuitable	-	water jet.

Temperatures above 500°C may produce heavy metal dust, fumes and/or vapours. The flux will give rise to irritating fumes. Fire fighters should wear full protective clothing and positive pressure breathing apparatus.

6. Accidental Release Measures

Not applicable.

7. Handling and Storage

Handling :

The fumes produced during soldering should be extracted away from the breathing zone of the operators. Avoid inhaling flux fumes. Ensure that the general area is well ventilated. Wash hands with soap and water after handling solder, particularly before eating, drinking or smoking.

Storage :

The products should be stored in a cool, dry area. Keep out of reach of children and away from food and drink.

8. Exposure Controls / Personal Protection

Although rosin free fluxes will remove the risk of respiratory sensitisation, controls such as local exhaust ventilation will continue to be required to eliminate or minimise exposure to flux fumes. Suitable examples include bench top, soldering iron tip extraction or an extraction arm.

Occupational Exposure Limits : None assigned

Ref : EH40 Occupational Exposure Limits

Respiratory Protection	: Necessary if there is a risk of exposure to flux fumes.
Eye Protection	: Operators should wear safety glasses or goggles to protect the eyes from spitting flux.

9. Physical and Chemical Properties

Appearance	: Solder alloy wire, silver-white to grey in colour.
Odour	: Not perceptable at ambient temperatures.
Melting Range	: 217°C to 227 °C. Flux chars above 250°C.
Solubility in Water	: Insoluble.

10. Stability and Reactivity

Conditions to avoid :
If solder is exposed to temperatures above 500°C then metal dust, fumes and/or vapour may be produced.

Materials to avoid :
Solder will react with concentrated nitric acid to release toxic fumes of nitric oxide, which oxidises to nitrogen dioxide, a red gas with a pungent odour. If personnel are exposed to these gases then immediate medical attention should be sought, as symptoms can be delayed for a considerable time and can be fatal.

11. Toxicological Information

Acute :
The flux fumes produced during soldering will irritate the nose, throat and respiratory system. Skin exposed to flux fumes may be affected by irritation and rash.

Chronic :
No chronic health effects have been obversed for these products.

12. Ecological Information

None available

13. Disposal Considerations

Wherever possible unwanted solder should be recycled for recovery of metal. Otherwise 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 regulations made under them.

14. Transport Information

Solder wire is not classified as hazardous for transport.

15. Regulatory Information

Classification according to the Chemicals (Hazard Information and Packaging for Supply) Regulations 1994:

Flux-cored solder wire is considered to be an article and is not subject to the above regulations. However, it is recommended that the following information be included on labels:

Avoid breathing fumes given out during soldering. Wash hands with soap and water before eating, drinking and smoking. Keep out of reach of children.

Applicable EC Directives :

Directive 80/1107/EEC on the protection of workers from the risk related to exposure to physical, chemical and biological agents at work.

Applicable UK Legislation :

The Health and Safety at Work etc. Act 1974
The Control of Substances Hazardous to Health Regulations 1999

The information provided in this Health & Safety Data Sheet is accurate to the best of our knowledge and belief. As we cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, are used this Data Sheet cannot constitute the user's assessment of workplace risk. Users are advised to make their own tests to determine the safety and suitablity of each product or product combination for their own purposes.

16. Other Information

Further Detailed Guidance from the UK Health and Safety Executive :

HS(G) 37	An Introduction to Local Exhaust Ventilation
HS(G) 53	Respiratory Protective Equipment - a Practical Guide for Users
HS(G) 97	A Step by Step Guide to the COSHH Regulations

Approved Code of Practice - Management of Health and Safety at Work
General Approved Code of Practice to the COSHH Regulations
Health Surveillance Under COSHH: Guidance for Employers

This Health and Safety Data Sheet is based on the requirements of the Chemicals (Hazard Informationand Packaging for Supply) Regulations 1994, (Commission Directive 91/155/EEC, as amended by Directive 93/112/EEC). It was issued on April 16th 2007.

anglia

Tel : +44 (0)1945 47 47 47 Fax : +44 (0)1945 47 48 49
www.anglia.com info@anglia.com

Sandall Road, Wisbech, PE13 2PS UK.