Conforms to 91/155/EEC - 2001/58/EC

SAFETY DATA SHEET

Cookson Electronics ASSEMBLY MATERIALS

Sn60 Pb38 Cu2 Fluitin 1532/122 0.75mm 1kg 20kg

1. Identification of the substance/preparation and of the company/undertaking

Product name : **Sn60 Pb38 Cu2 Fluitin 1532/122 0.75mm 1kg 20kg**

Code : **15132**

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2. Composition / information on ingredients

Substance/Preparation : Preparation

Chemical name*	CAS No.	%	EC Number	Classification
Europe				
tin	7440-31-5	40-60	231-141-8	
lead	7439-92-1	30-40	231-100-4	Repr. Cat. 1; R61 Repr. Cat. 3; R62 Xn; R20/22 R33 N; R50/53
Colophony	8050-09-7	1-5	232-475-7	R43
copper	7440-50-8	1-5	231-159-6	
See Section 16 for the full text of the R Phrases declared above				

*** Occupational Exposure Limit(s), if available, are listed in section 8**

3. Hazards identification

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

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Skin Contact : Irritation of the product in case of skin contact: Not available. Sensitization of the product: Not available.

Aggravating conditions : Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

4. First-aid measures

First-Aid measures

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin Contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Eye Contact : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

5. Fire-fighting measures

Extinguishing Media

Suitable : SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Hazardous thermal (de)composition products : Some metallic oxides.

Special fire-fighting procedures : Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Protection of fire-fighters : Be sure to use an approved/certified respirator or equivalent.

6. Accidental release measures

Personal precautions : Splash goggles. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Environmental Precautions and Clean-up Methods : Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Note: See section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling : Keep locked up. Do not breathe dust. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area.

Packaging materials

Recommended use : Use original container.

Danish Fire Class : Not applicable.

8. Exposure controls/personal protection

Engineering measures : Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Hygiene measures : Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Ingredient Name	Occupational Exposure Limits
Europe	
tin	**ACGIH TLV (United States, 2001). Skin** STEL: 0.2 mg/m^3 15 minute(s). TWA: 0.1 mg/m^3 8 hour(s).
lead	**EU OEL (Europe, 1998). Notes: Binding** TWA: 0.15 mg/m^3 8 hour(s).
copper	**ACGIH TLV (United States, 2001). Notes: Adopted Values enclosed are those for which changes are proposed. Consult the Notice of Intended Changes for current proposal. See Notice of Intended changes. Adopted Values enclosed are those for which changes are proposed. Consult the Notice of Inten ded Changes for current proposal. See Notice of Intended changes.** TWA: 1 mg/m^3 8 hour(s). TWA: 0.2 mg/m^3 8 hour(s). Form: Fume
Sweden	
lead	**AFS (Sweden, 2000).** NGV: 0.05 mg/m^3 8 hour(s). Form: Dust
copper	**AFS (Sweden, 2000).** NGV: 0.2 mg/m^3 8 hour(s). Form: Dust NGV: 0.2 mg/m^3 8 hour(s). Form: Fume
Denmark	
lead	**Arbejdstilsynet (Denmark, 2000).** GV: 0.05 mg/m^3 8 hour(s).
copper	**Arbejdstilsynet (Denmark, 2000).** GV: 0.1 mg/m^3 8 hour(s). Form: Fume GV: 1 mg/m^3 8 hour(s).
Norway	
lead	**Arbeidstilsynet (Norway, 2001).** AN: 0.05 mg/m^3 8 hour(s). Form: Dust and fumes
copper	**Arbeidstilsynet (Norway, 2001).** AN: 1 mg/m^3 8 hour(s). Form: Dust AN: 0.1 mg/m^3 8 hour(s). Form: Fume
France	

lead	**INRS (France, 1999). Notes: Legal** VME: 0.15 mg/m³ 8 hour(s).
copper	**INRS (France, 1999). Notes: Not Legal** VLE: 2 mg/m³ 15 minute(s). Form: Dust VME: 1 mg/m³ 8 hour(s). Form: Dust VME: 0.2 mg/m³ 8 hour(s). Form: Fume
Colophony	**INRS (France, 1999). Notes: Not Legal** VME: 0.1 mg/m³ 8 hour(s).
Netherlands	
tin	**Nationale MAC-lijst (Netherlands, 2001). Notes: Tentative** TGG 8 uur: 2 mg/m³ 8 hour(s).
lead	**Nationale MAC-lijst (Netherlands, 2001). Notes: Legal** TGG 8 uur: 0.15 mg/m³ 8 hour(s). Form: Dust and fumes
copper	**Nationale MAC-lijst (Netherlands, 2001). Notes: Tentative** TGG 8 uur: 1 mg/m³ 8 hour(s). Form: Dust TGG 8 uur: 0.2 mg/m³ 8 hour(s). Form: Fume
Germany	
tin	**MAK-Werte Liste (Germany, 2000). Skin** Spitzenbegrenzung: 0.2 mg/m³ 4 times per shift, 30 minute(s). Form: Inhalable fraction TWA: 0.1 mg/m³ 8 hour(s). Form: Inhalable fraction **TRGS900 MAK (Germany, 2001).** TWA: 2 mg/m³ 8 hour(s).
lead	**MAK-Werte Liste (Germany, 2000).** Spitzenbegrenzung: 1 mg/m³ 1 times per shift, 30 minute(s). Form: Inhalable fraction TWA: 0.1 mg/m³ 8 hour(s). Form: Inhalable fraction **TRGS900 MAK (Germany, 2001).** Spitzenbegrenzung: 0.4 mg/m³ TWA: 0.1 mg/m³ 8 hour(s).
copper	**MAK-Werte Liste (Germany, 2000).** Spitzenbegrenzung: 2 mg/m³ 4 times per shift, 30 minute(s). Form: Inhalable fraction Spitzenbegrenzung: 0.2 mg/m³ 4 times per shift, 30 minute(s). Form: Respirable fraction TWA: 1 mg/m³ 8 hour(s). Form: Inhalable fraction TWA: 0.1 mg/m³ 8 hour(s). Form: Respirable fraction **TRGS900 MAK (Germany, 2001).** Spitzenbegrenzung: 4 mg/m³ Spitzenbegrenzung: 0.4 mg/m³ Form: Fume TWA: 1 mg/m³ 8 hour(s). TWA: 0.1 mg/m³ 8 hour(s). Form: Fume
Finland	
tin	**Työterveyslaitos (Finland, 2001).** TWA: 2 mg/m³ 8 hour(s).
lead	**EU OEL (Europe, 1998). Notes: Binding** TWA: 0.15 mg/m³ 8 hour(s).
copper	**Työterveyslaitos (Finland, 2001).** STEL: 0.1 ppm 15 minute(s). Form: Dust STEL: 0.1 ppm 15 minute(s). Form: Fume TWA: 1 mg/m³ 8 hour(s).
United Kingdom (UK)	
tin	**EH40-OES (United Kingdom (UK), 2002).** TWA: 2 mg/m³ 8 hour(s). STEL: 4 mg/m³ 15 minute(s).
lead	**EH40-OES (United Kingdom (UK), 2002).** TWA: 0.15 mg/m³ 8 hour(s).
Colophony	**EH40-MEL (United Kingdom (UK), 2002). Sensitizer skin, Sensitizer inhalation** TWA: 0.05 mg/m³ 8 hour(s). Form: Rosin-based solder flux fume STEL: 0.15 mg/m³ 15 minute(s). Form: Rosin-based solder flux fume
copper	**EH40-OES (United Kingdom (UK), 2002). Notes: OES** STEL: 2 mg/m³ 15 minute(s). Form: Dusts and Mists TWA: 1 mg/m³ 8 hour(s). Form: Dusts and Mists TWA: 0.2 mg/m³ 8 hour(s). Form: Fume
Austria	
tin	**BMWA_MAK (Austria, 2001).** STEL: 4 mg/m³ 4 times per shift, 15 minute(s). TWA: 2 mg/m³ 8 hour(s).
lead	**BMWA_MAK (Austria, 2001).** STEL: 0.4 mg/m³ 4 times per shift, 15 minute(s). TWA: 0.1 mg/m³ 8 hour(s).
copper	**BMWA_MAK (Austria, 2001).** STEL: 4 mg/m³ 4 times per shift, 15 minute(s). STEL: 0.4 mg/m³ 4 times per shift, 15 minute(s). Form: Dust and fumes TWA: 1 mg/m³ 8 hour(s). TWA: 0.1 mg/m³ 8 hour(s). Form: Dust and fumes
Switzerland	

lead	**SUVA (Switzerland, 2001). Notes: Not Temporary** MAK: 0.1 mg/m³ 8 hour(s). Form: Dust
copper	**SUVA (Switzerland, 2001). Notes: Not Temporary** Kurzzeitsgrenzwerte: 2 mg/m³ 15 minute(s). Form: Dust Kurzzeitsgrenzwerte: 0.2 mg/m³ 15 minute(s). Form: Dust and fumes MAK: 1 mg/m³ 8 hour(s). Form: Dust MAK: 0.1 mg/m³ 8 hour(s). Form: Dust and fumes
Belgium	
tin	**Lijst Grenswaarden (Belgium, 1998). Skin** VL: 2 mg/m³ 8 hour(s).
lead	**Lijst Grenswaarden (Belgium, 1998).** VL: 0.15 mg/m³ 8 hour(s). Form: Dust and fumes
copper	**Lijst Grenswaarden (Belgium, 1998).** VL: 1 mg/m³ 8 hour(s). Form: Dusts and Mists VL: 0.2 mg/m³ 8 hour(s). Form: Fume
Spain	
tin	**INSHT (Spain, 2001).** TWA: 2 mg/m³ 8 hour(s).
lead	**INSHT (Spain, 2001).** TWA: 0.15 mg/m³ 8 hour(s).
copper	**INSHT (Spain, 2001).** TWA: 0.2 mg/m³ 8 hour(s).

Personal protective equipment

Respiratory system : Wear appropriate respirator when ventilation is inadequate.

Skin and body : Lab coat.

Eyes : Safety glasses.

9. Physical and chemical properties

Physical state : Solid.

Color : Silvery.

Odor : Not available.

pH : Not applicable.

Melting Point : 183 to 190°C (361.4 to 374°F)

Flash point : Not available.

Explosive properties : Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.

Oxidizing Properties : Not available.

Density : 7.9 g/cm³ (20°C / 68°F)

Solubility : Insoluble in cold water, hot water.

10. Stability and reactivity

Stability : The product is stable.

Hazardous Decomposition Products : Some metallic oxides.

Colophony: Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL

11. Toxicological information

Acute toxicity

Ingredient Name	Test	Result	Route	Species
lead	LDLo	160 mg/kg	Oral	pigeon

Local effects

Chronic toxicity : Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Specific effects

Ingredient Name	Carcinogenic Effects	Mutagenic Effects	Developmental toxicity	Impairs fertility
lead			Repr. Cat. 1; R61	Repr. Cat. 3; R62

12. Ecological information

Ecotoxicity Data

Ingredient Name	Species	Period	Result
lead	Oncorhynchus mykiss (LC50)	96 hours	1.17 mg/l
copper	Daphnia magna (EC50)	48 hours	0.0318 mg/l
	Pimephales promelas (LC50)	96 hours	0.0094 mg/l

13. Disposal considerations

Methods of disposal ; Waste of residues ; Contaminated packaging : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Waste Classification : Not applicable.

European Waste Catalogue (EWC) : Not available.

Hazardous Waste : To present knowledge of the supplier, this product is not regarded as hazardous waste as defined by EU Directive 91/689/EC.

14. Transport information

International transport regulations

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
ADR/RID Class	Not regulated.	-	-			-
IMDG Class	Not regulated.	-	-			-
IATA-DGR Class	Not regulated.	-	-			-

15. Regulatory information

EU Regulations

Risk Phrases : This product is not classified according to the EU regulations.

Product Use : Classification and labeling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.
- Industrial applications.

Additional Warning Phrases : Safety Data Sheet available for professional user on request.

EC Statistical Classification (Tariff Code) : 32089091

National regulations

Denmark

Additional Warning Phrases : Safety Data Sheet available for professional user on request.

Denmark – Cancer Risks : Not available.

Denmark – Restrictions on Use : Not available.

Statutory Order 517 on Aerosols : Not applicable.

Netherlands

K-Klasse : K5

CPR : Not regulated.

SHHR : 0ZZ

Germany

Employment restrictions in accordance with § 15b of the Hazardous Substance Ordinance : No.

Hazardous Incident Ordinance	:	No.
Ordinance on Combustible Liquids	:	Class: Omitted
Technical Instruction on Air Quality Control	:	Class III 3.1.4: 40%
Hazard class for water	:	1

16. Other information

Full text of R-Phrases with no. appearing in Section 2 - Europe	:	R61- May cause harm to the unborn child. R62- Possible risk of impaired fertility. R20/22- Harmful by inhalation and if swallowed. R33- Danger of cumulative effects. R43- May cause sensitization by skin contact. R50- Very toxic to aquatic organisms. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Text of classifications appearing in Section 2 - Europe	:	Repr. Cat.1 - Toxic for reproduction Category 1 Repr. Cat.3 - Toxic for reproduction Category 3 Xn - Harmful N - Dangerous for the environment.

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Prepared by	:	**Simon Hosken** **Environmental, Health and Safety Manager**

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