

SAFETY DATA SHEET



Cookson Electronics ASSEMBLY MATERIALS

99C Sn/Cu 3.25mm 0.5Kg

1. Identification of the preparation and of the company

Product name : 99C Sn/Cu 3.25mm 0.5Kg**Code** : 20813**Head Office** : **Cookson Electronics**
Forsyth Road
Sheerwater
Woking
Surrey
England
GU21 5RZ
Tel: +44(0)1483 758400
Fax: +44(0)1483 728837**Manufacturer** : Cookson Electronics Assembly
Materials Group
Naarden Manufacturing Site
Energistraat 21
1411 AR Naarden
The Netherlands
Tel: +31 (35) 695 5411
Fax: +31 (35) 694 8451**Contact person** : shosken@cooksonelectronics.com**Material uses** : soldering

2 Hazards identification

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

Classification : Not classified.**Skin contact** : Non-irritant to skin.**Toxicity data** : Not available.**Additional warning phrases** : Safety data sheet available for professional user on request.

See section 11 for more detailed information on health effects and symptoms.

3 Composition/information on ingredients

Substance/preparation : Preparation

Ingredient name	CAS number	%	EC number	Classification
Europe				
tin	7440-31-5	80 - 100	231-141-8	Not classified.
copper	7440-50-8	0.5 - 1	231-159-6	Not classified.
See section 16 for the full text of the R-phrases declared above				

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

* The classifications listed, indicate the potential hazards of the ingredients

4. First-aid measures

First-aid measures

Skin contact : Flush contaminated skin with plenty of water. Cuts should be treated promptly and covered.**Eye contact** : Get medical attention if any damage to the eye is caused by the metal.**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See section 11 for more detailed information on health effects and symptoms.

Date of issue : 31/07/2008.

1/8

5. Fire-fighting measures

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : No specific fire or explosion hazard.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products : Decomposition products may include the following materials:
metal oxide/oxides

Special protective equipment for fire-fighters : No special protection is required.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.

Environmental precautions : No specific hazard.

Large spill : Restack safely. Take care with items that are sharp or heavy.

Small spill : Restack safely. Take care with items that are sharp or heavy.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see section 8). Workers should wash hands and face before eating, drinking and smoking. Take care with items that are sharp or heavy.

Storage : Store in accordance with local regulations.

Packaging materials

Recommended : Use original container.

8. Exposure controls/personal protection

Exposure limit values

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Europe	
tin	ACGIH TLV (United States, 1/2006). TWA: 2 mg/m ³ 8 hour(s).
copper	ACGIH TLV (United States, 1/2006). Notes: as Cu TWA: 1 mg/m ³ , (as Cu) 8 hour(s). ACGIH TLV (United States, 1/2006). TWA: 0.2 mg/m ³ 8 hour(s). Form: Fume
Sweden	
copper	AFS (Sweden, 2000). NGV: 0.2 mg/m ³ 8 hour(s). Form: Fume TWA: 0.2 mg/m ³ 8 hour(s). Form: respirable dust TWA: 1 mg/m ³ 8 hour(s). Form: total dust
Denmark	
copper	Arbejdstilsynet (Denmark, 4/2005). Notes: Calculated as Cu TWA: 0.1 mg/m ³ , (Calculated as Cu) 8 hour(s). Form: Fume Arbejdstilsynet (Denmark, 4/2005). TWA: 1 mg/m ³ 8 hour(s). Form: Powder and dust
Norway	
copper	Arbejdstilsynet (Norway, 10/2003). TWA: 1 mg/m ³ 8 hour(s). Form: Dust TWA: 0.1 mg/m ³ 8 hour(s). Form: Fume
France	

Date of issue : 31/07/2008.

2/8

8. Exposure controls/personal protection

copper

INRS (France, 6/2006). Notes: As Cu indicative exposure limits

STEL: 2 mg/m³, (As Cu) 15 minute(s). Form: Dust

TWA: 1 mg/m³, (As Cu) 8 hour(s). Form: Dust

INRS (France, 6/2006). Notes: indicative exposure limits

TWA: 0.2 mg/m³ 8 hour(s). Form: Fume

Netherlands

copper

Nationale MAC-lijst (Netherlands, 7/2006). Notes: Administrative OEL, 8-h TWA: 0.1 mg/m³ 8 hour(s). Form: Inhalable fraction

Germany

copper

MAK-Werte Liste (Germany, 7/2006).

PEAK: 0.2 mg/m³, 4 times per shift, 15 minute(s). Form: Aerosol / measured as the inhalable fraction

TWA: 0.1 mg/m³ 8 hour(s). Form: Aerosol / measured as the inhalable fraction

Finland

tin

Työterveyslaitos (Finland, 2002).

TWA: 2 mg/m³ 8 hour(s).

Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 4/2005). Notes: Calculated as Sn

TWA: 2 mg/m³, (Calculated as Sn) 8 hour(s).

copper

Työterveyslaitos (Finland, 2002).

TWA: 1 mg/m³ 8 hour(s).

Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 4/2005). Notes: Calculated as Cu

STEL: 0.1 ppm, (Calculated as Cu) 15 minute(s). Form: dust, respirable fraction

STEL: 0.1 ppm, (Calculated as Cu) 15 minute(s). Form: vapor, respirable fraction

United Kingdom (UK)

tin

EH40-OES (United Kingdom (UK), 2002).

TWA: 2 mg/m³ 8 hour(s).

STEL: 4 mg/m³ 15 minute(s).

copper

EH40-WEL (United Kingdom (UK), 9/2006). Notes: As Cu

WEL 15 min limit: 2 mg/m³, (As Cu) 15 minute(s). Form: Dusts and Mists

WEL 8 hrs limit: 1 mg/m³, (As Cu) 8 hour(s). Form: Dusts and Mists

WEL 8 hrs limit: 0.2 mg/m³, (As Cu) 8 hour(s). Form: Fume

Austria

tin

GKV_MAK (Austria, 6/2006).

STEL: 4 mg/m³, 4 times per shift, 15 minute(s). Form: Inhalable fraction

TWA: 2 mg/m³ 8 hour(s). Form: Inhalable fraction

copper

GKV_MAK (Austria, 6/2006).

STEL: 4 mg/m³, 4 times per shift, 15 minute(s). Form: Inhalable fraction

STEL: 0.4 mg/m³, 4 times per shift, 15 minute(s). Form: respirable fume

TWA: 1 mg/m³ 8 hour(s). Form: Inhalable fraction

TWA: 0.1 mg/m³ 8 hour(s). Form: respirable fume

Switzerland

copper

SUVA (Switzerland, 2/2005). Notes: not temporary

STEL: 0.2 mg/m³ 15 minute(s). Form: inhalable dust

TWA: 0.1 mg/m³ 8 hour(s). Form: inhalable dust

Belgium

8. Exposure controls/personal protection

tin	Lijst Grenswaarden / Valeurs Limites (Belgium, 3/2006). Skin TWA: 2 mg/m ³ 8 hour(s).
copper	Lijst Grenswaarden / Valeurs Limites (Belgium, 3/2006). Notes: As Cu TWA: 1 mg/m ³ , (As Cu) 8 hour(s). Form: dusts and mists TWA: 0.2 mg/m ³ , (As Cu) 8 hour(s). Form: fume
Spain	
tin	INSHT (Spain, 1/2006). TWA: 2 mg/m ³ 8 hour(s).
copper	INSHT (Spain, 1/2006). Notes: As Cu TWA: 1 mg/m ³ , (As Cu) 8 hour(s). Form: Dusts and mists INSHT (Spain, 1/2006). TWA: 0.2 mg/m ³ 8 hour(s). Form: Fume
Turkey	
tin	NIOSH REL (United States, 6/2001). Notes: Note: The REL and PEL also apply to other inorganic tin compounds (as Sn) except tin oxides. TWA: 2 mg/m ³ 10 hour(s). Form: All forms
copper	NIOSH REL (United States, 6/2001). Notes: Note: The REL and PEL also apply to other copper compounds (as Cu) except Copper fumes. TWA: 1 mg/m ³ 10 hour(s). Form: Dusts and Mists
Czech Republic	
copper	178/2001 (Czech Republic, 6/2004). STEL: 2 mg/m ³ 10 minute(s). Form: Dust STEL: 0.2 mg/m ³ 10 minute(s). Form: Fume TWA: 1 mg/m ³ 8 hour(s). Form: Dust TWA: 0.1 mg/m ³ 8 hour(s). Form: Fume
Ireland	
copper	NAOSH (Ireland, 3/2002). Notes: As Cu. OELV-15min: 2 mg/m ³ , (As Cu.) 15 minute(s). Form: Dusts and Mists OELV-8hr: 1 mg/m ³ , (As Cu.) 8 hour(s). Form: Dusts and Mists OELV-8hr: 0.2 mg/m ³ , (As Cu.) 8 hour(s). Form: Fume
Italy	
No exposure limit value known.	
Estonia	
copper	Sotsiaalminister (Estonia, 9/2001). TWA: 0.2 MG/M3 8 hour(s). Form: inhalable dust TWA: 1 MG/M3 8 hour(s). Form: total dust
Lithuania	
copper	Del Lietuvos Higienos Normos (Lithuania, 12/2001). Notes: As Cu TWA: 1 MG/M3, (As Cu) 8 hour(s). Form: Inhalable fraction TWA: 0.2 MG/M3, (As Cu) 8 hour(s). Form: Respirable fraction
Slovakia	
copper	Nariadenie Vlády Slovenskej republiky (Slovakia, 5/2006). CEIL: 2 mg/m ³ Form: dust CEIL: 0.2 mg/m ³ Form: respirable smoke TWA: 1 mg/m ³ 8 hour(s). Form: dust TWA: 0.1 mg/m ³ 8 hour(s). Form: respirable smoke
Hungary	
copper	EüM-SzCsM (Hungary, 11/2002). PEAK: 0.4 mg/m ³ 15 minute(s). Form: Dust TWA: 0.1 mg/m ³ 8 hour(s). Form: Dust
Poland	

8. Exposure controls/personal protection

tin	Ministra Pracy I Polityki Społecznej (Poland, 10/2005). Notes: Calculated as Sn TWA: 2 mg/m ³ , (Calculated as Sn) 8 hour(s). Form: smokes and dusts
copper	Ministra Pracy I Polityki Społecznej (Poland, 10/2005). Notes: Calculated as Cu STEL: 0.3 mg/m ³ , (Calculated as Cu) 15 minute(s). TWA: 0.1 mg/m ³ , (Calculated as Cu) 8 hour(s).
Slovenia	
copper	Uradni list Republike Slovenije (Slovenia, 4/2005). PEAK: 4 MG/M3, 4 times per shift, 15 minute(s). Form: Inhalable fraction PEAK: 0.4 MG/M3, 4 times per shift, 15 minute(s). Form: respirable fume TWA: 1 MG/M3 8 hour(s). Form: Inhalable fraction TWA: 0.1 MG/M3 8 hour(s). Form: respirable fume
Latvia	
copper	LV Nat. Standardisation and Meterological Centre (Latvia, 11/2004). STEL: 1 MG/M3 15 minute(s). TWA: 0.5 MG/M3 8 hour(s).
Greece	
tin	PD 90/1999 (Greece, 2/2003). TWA: 2 MG/M3 8 hour(s).
copper	PD 90/1999 (Greece, 2/2003). STEL: 2 MG/M3 15 minute(s). Form: Dust TWA: 1 MG/M3 8 hour(s). Form: Dust TWA: 0.2 MG/M3 8 hour(s). Form: Fume
Portugal	
tin	Instituto Português da Qualidade (Portugal, 7/2004). TWA: 2 MG/M3 8 hour(s).
copper	Instituto Português da Qualidade (Portugal, 7/2004). Notes: Expressed as Cu TWA: 1 MG/M3, (Expressed as Cu) 8 hour(s). Form: Dusts and Mists TWA: 0.2 MG/M3, (Expressed as Cu) 8 hour(s). Form: Fume

Exposure controls

- Occupational exposure controls** : No special ventilation requirements.
- Hygiene measures** : Wash thoroughly after handling.
- Respiratory protection** : Not applicable.
Recommended: None assigned.
- Hand protection** : Use strong, cut-resistant gloves suitable for handling metals.
<1 hours (breakthrough time): disposable vinyl
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: safety glasses with side-shields EN 166 1F
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Recommended: overall

9. Physical and chemical properties

General information

Appearance

- Physical state** : Solid.
Colour : Silvery.

Important health, safety and environmental information

- Melting point** : 228 to 250°C (442.4 to 482°F)
Solubility : Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

- Stability** : The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
Conditions to avoid : No specific data.
Materials to avoid : No specific data.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Potential acute health effects

- Skin contact** : No known significant effects or critical hazards.

Acute toxicity

Over-exposure signs/symptoms

- Target organs** : Contains material which causes damage to the following organs: kidneys, liver, upper respiratory tract, skin, eye, lens or cornea.

12. Ecological information

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
copper	Intoxication	Acute EC50 0.055 mg/L	Daphnia	48 hours
	Intoxication	Acute EC50 0.036 mg/L	Daphnia	48 hours
	Intoxication	Acute EC50 0.0318 mg/L	Daphnia	48 hours
	Mortality	Acute LC50 0.0278 mg/L	Fish	96 hours
	Mortality	Acute LC50 0.0103 mg/L	Fish	96 hours
	Mortality	Acute LC50 0.0094 mg/L	Fish	96 hours

Biodegradability

- Other adverse effects** : No known significant effects or critical hazards.

- AOX** : The product does not contain organically bound halogens which could lead to an AOX value in waste water.

13. Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
- European waste catalogue (EWC)** : 10 08 11 dross and skimmings other than those mentioned in 10 08 10
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA Class	Not regulated.	-	-	-		-

PG* : Packing group

15. Regulatory information

EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

- Risk phrases** : This product is not classified according to EU legislation.
- Product use** : Industrial applications.

Other EU regulations

Additional warning phrases : Safety data sheet available for professional user on request.

Germany

- Hazard class for water** : nwg Appendix No. 4
- Technical instruction on air quality control** : TA-Luft Number 5.2.1: 100%

Italy

Emission control directive : Not classified.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - Europe : None assigned.

Full text of classifications referred to in sections 2 and 3 - Europe : None assigned.

History

- Date of printing** : 31/07/2008.
- Date of issue** : 31/07/2008.
- Date of previous issue** : No previous validation.
- Version** : 2
- Prepared by** : Simon Hosken
Environmental, Health and Safety Manager

Indicates information that has changed from previously issued version.

Date of issue : 31/07/2008.

7/8

16. Other information

References

The Health and Safety At Work Act 1974, section 6.
Control of Substances Hazardous to Health (CoSHH) Regulations 2002 and its amendments.

Preparation contains solely TSCA and EINECS listed substances.

This safety data sheet has been prepared in accordance with the requirements of the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 which implement EC Directives 1999/45/EC and 2001/58/EC and their amendments.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.