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

SAFETY DATA SHEET

Cookson Electronics ASSEMBLY MATERIALS

Alphi 11

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

Product name : **Alphi 11**

Code : **23980**

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
Ashford Manufacturing Site
Henwood Industrial Estate
Hythe Road
Ashford
Kent
England
TN24 8DH
Tel: +44 (0) 1233 610110
Fax: +44 (0) 1233 664323

Material uses : Water-boiler treatment.

2. Composition/information on ingredients

Substance/preparation : Preparation

Chemical name*	CAS no.	%	EC Number	Classification
Europe				
triethanolamine	102-71-6	1 - 5	203-049-8	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, indecate the potential hazards of the ingredients**

3. Hazards identification

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

Classification : Not classified.

Skin contact : Slightly hazardous in case of skin contact (irritant).

Toxicity data : Not available.

4. First aid measures

First-Aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

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

Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

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

Eye Contact : Check for and remove any contact lenses. In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Cold water may be used. Obtain medical attention.

5. Fire-fighting measures

Extinguishing media : Recommended: alcohol resistant foam, CO_2, powders, water spray.
Not to be used : waterjet.

Hazardous thermal decomposition products : These products are carbon oxides (CO, CO_2), nitrogen oxides (NO, NO_2...).

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

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

Recommendations : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to sewers or waterways.

6. Accidental release measures

Personal Precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Environmental precautions and clean-up methods : Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling : Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapour/spray. If ingested, seek medical advice immediately and show the container or the label.

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

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

Packaging materials

Recommended : Use original container.

8. Exposure controls/personal protection

Engineering measures : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

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	
triethanolamine	**ACGIH TLV (United States, 9/2004).** TWA: 5 mg/m^3 8 hour(s). Form: All forms
Sweden	
triethanolamine	**AFS (Sweden, 3/2000).** KTV: 10 mg/m^3 15 minute(s). Form: All forms NGV: 5 mg/m^3 8 hour(s). Form: All forms
Denmark	
triethanolamine	**Arbejdstilsynet (Denmark, 10/2002).** GV: 3.1 mg/m^3 8 hour(s). Form: All forms GV: 0.5 ppm 8 hour(s). Form: All forms
Norway	
triethanolamine	**Arbeidstilsynet (Norway, 12/2003).** AN: 5 mg/m^3 8 hour(s). Form: All forms
France	

Netherlands

triethanolamine — **Nationale MAC-lijst (Netherlands, 1/2004). Notes:**
TGG: 5 mg/m³ 8 hour(s). Form: All forms

Germany

triethanolamine — **TRGS900 MAK (Germany, 9/2003).**
TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction

Finland

United Kingdom (UK)

propylene glycol — **EH40-OES (United Kingdom (UK), 2002). Notes: OES**
TWA: 10 mg/m³ 8 hour(s). Form: Particulate
TWA: 474 mg/m³ 8 hour(s). Form: Sum of vapor and particulates
TWA: 150 ppm 8 hour(s). Form: Sum of vapor and particulates

Where a MEL has been assigned, exposure should be reduced as low as is reasonably praticable and should not exceed the MEL.

Austria

triethanolamine — **BMWA_MAK (Austria, 12/2003).**
STEL: 10 mg/m³ 4 times per shift, 15 minute(s). Form: All forms
STEL: 1.6 ppm 4 times per shift, 15 minute(s). Form: All forms
TWA: 5 mg/m³ 8 hour(s). Form: All forms
TWA: 0.8 ppm 8 hour(s). Form: All forms

Switzerland

Belgium

triethanolamine — **Lijst Grenswaarden / Valeurs Limites (Belgium, 10/2003).**
TWA: 5 mg/m³ 8 hour(s). Form: All forms

Czech Republic

triethanolamine — **178/2001 (Czech Republic, 1/2001).**
STEL: 10 mg/m³ 10 minute(s). Form: All forms
STEL: 1.64 ppm 10 minute(s). Form: All forms
TWA: 5 mg/m³ 8 hour(s). Form: All forms
TWA: 0.82 ppm 8 hour(s). Form: All forms

Ireland

propylene glycol — **NAOSH (Ireland, 1999).**
OELV: 10 mg/m³ 8 hour(s). Form: Particulate
OELV: 470 mg/m³ 8 hour(s). Form: Sum of vapor and particulates
OELV: 150 ppm 8 hour(s). Form: Sum of vapor and particulates

triethanolamine — **NAOSH (Ireland, 1/2002).**
OELV: 5 mg/m³ 8 hour(s). Form: All forms

Spain

triethanolamine — **INSHT (Spain, 10/2004).**
VLA-ED: 5 mg/m³ 8 hour(s). Form: All forms

Estonia

triethanolamine — **Sotsiaalminister (Estonia, 9/2001).**
STEL: 10 mg/m³ 15 minute(s). Form: All forms
TWA: 5 mg/m³ 8 hour(s). Form: All forms

Lithuania

propylene glycol — **Del Lietuvos Higienos Normos (Lithuania, 12/2001).**
TWA: 7 mg/m³ 8 hour(s). Form: All forms

triethanolamine — **Del Lietuvos Higienos Normos (Lithuania, 12/2001).**
STEL: 10 mg/m³ 15 minute(s). Form: All forms
TWA: 5 mg/m³ 8 hour(s). Form: All forms

Slovenia

triethanolamine — **Uradni list Republike Slovenije (Slovenia, 1/2000).**
TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction

Personal protective equipment

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended:Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hand protection : Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
<1 hour(s) (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 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.
Body: Recommended:lab coat

Additional Information : Not available.

9. Physical and chemical properties

General information

Appearance

Physical state : Liquid.

Colour : Colourless.

Odour : Mild

Important health, safety and environmental information

pH : 7 (Conc. (% w/w): 100) [Neutral.]

Boiling point : 100°C (212°F)

Melting point May start to solidify at 22°C (71.6°F) based on data for: triethanolamine. Weighted average: -57.64°C (-71.8°F)

Flash point : The lowest known value is Closed cup: 98.9°C (210°F). (propylene glycol)

Relative density : 1.043 (20°C / 68°F)

Solubility : Easily soluble in cold water, hot water.

Viscosity : Kinematic: 60 cSt

Vapor density : The highest known value is 5.14 (Air = 1) (triethanolamine). Weighted average: 2.65 (Air = 1)

Evaporation rate (butyl acetate = 1) : The highest known value is 0.36 (water) Weighted average: 0.02compared to (n-BUTYL ACETATE=1)

Other information

Auto-ignition temperature : The lowest known value is 371.16°C (700.1°F) (propylene glycol).

10. Stability and reactivity

Stability : The product is stable.

Hazardous decomposition products : These products are carbon oxides (CO, CO_2), nitrogen oxides (NO, NO_2...).

11. Toxicological information

Acute toxicity

Ingredient name	Test	Result	Route	Species
triethanolamine	LD50	2200 mg/kg	Oral	Rabbit
	LD50	2200 mg/kg	Oral	Guinea pig
	LD50	5846 mg/kg	Oral	Mouse

Local effects

Skin irritation : Slightly hazardous in case of skin contact (irritant).

Sensitisation : Slightly hazardous in case of skin contact (sensitiser).

Toxicity data : Not available.

Over-exposure signs/symptoms

12. Ecological information

Ecotoxicity data

Ingredient name	Species	Period	Result
triethanolamine	Scenedesmus subspicatus (EC50)	48 hour(s)	470 mg/l
	Pimephales promelas (LC50)	96 hour(s)	11800 mg/l

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

13. Disposal considerations

Methods of disposal ; Waste of residues ; Contaminated packaging : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. 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.

Waste classification : Not applicable.

European waste catalogue (EWC) : 16 03 06

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.

Safety Phrases : S46- If swallowed, seek medical advice immediately and show this container or label.

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

MAL-code : 00-1

Denmark – Restrictions on use : Not to be used by professional users below 18 years of age, see the National Working Environment Authorities Executive Order on young peoples dangerous work.

Statutory order 517 on aerosols : Not applicable.

Netherlands

K-Klasse	:	K3
CPR	:	Not regulated.
SHHR	:	0ZZ

Germany

Other Regulations		TRGS 900
Ordinance on combustible liquids	:	Class: A III
Technical instruction on air quality control	:	Class II: 0.19%
Hazard class for water	:	1

16. Other information

Full text of R phrases referred to in sections 2 and 3 - Europe	:	Not applicable.
Full text of classifications referred to in sections 2 and 3 - Europe	:	Not applicable.

History

Date of printing	:	**15/09/2005.**
Date of issue	:	**15/09/2005.**
Date of previous issue	:	**No Previous Validation.**
Version	:	**1**
Prepared by	:	**Simon Hosken** **Environmental, Health and Safety Manager**

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 soley 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.