

SAFETY DATA SHEET



Cookson Electronics ASSEMBLY MATERIALS

AF-10 Central Heating Biocide 500ml (Box of 10)

1. Identification of the preparation and of the company

Product name : AF-10 Central Heating
Biocide 500ml (Box of 10)

Code : 58430

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Material uses : Water treatment agent.

2 Hazards identification

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Xi; R36
R43

Effects and symptoms

Inhalation : May be fatal if inhaled.

Ingestion : May be fatal if swallowed.

Skin contact : Slightly hazardous by the following route of exposure: of skin contact (irritant).

Eye contact : Hazardous by the following route of exposure: of eye contact (irritant).

Toxicity data : Not available.

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 chlorocresol	59-50-7	5 - 10	200-431-6	Xn; R21/22 Xi; R41 R43 N; R50
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, if available, are listed in section 8.

The classifications listed, indicate the potential hazards of the ingredients

Date of issue : 28/06/2011.

1/8

4. First-aid measures

First-aid measures

- Inhalation** : It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.
- Skin contact** : Flush contaminated skin with plenty of water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if irritation develops. In the event of any complaints or symptoms, avoid further exposure.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- 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.

5. Fire-fighting measures

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : In a fire or if heated, a pressure increase will occur and the container may burst. 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:
carbon dioxide
carbon monoxide
halogenated compounds
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Large spill** : Prevent entry into sewers, water courses, basements or confined areas. Place spilt material in an appropriate container for disposal. Dispose of via a licensed waste disposal contractor. Use a water rinse for final clean-up. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
- Small spill** : Dilute with plenty of water.

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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
- Packaging materials**
- Recommended** : Use original container.
- Czech Republic - Storage code** : III

8. Exposure controls/personal protection

Exposure limit values

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Europe No exposure limit value known.	
Sweden chlorocresol	AFS 2005:17 (Sweden, 6/2007). Skin sensitiser. STEL: 6 mg/m ³ 15 minute(s). TWA: 3 mg/m ³ 8 hour(s).
Denmark No exposure limit value known.	
Norway propane-1,2-diol	Arbeidstilsynet (Norway, 11/2007). TWA: 79 mg/m ³ 8 hour(s). TWA: 25 ppm 8 hour(s).
France No exposure limit value known.	
Netherlands chlorocresol	Nationale MAC-lijst (Netherlands, 7/2006). Notes: Administrative OEL, 8-h TWA: 3 mg/m ³ 8 hour(s).
Germany No exposure limit value known.	
Finland No exposure limit value known.	
United Kingdom (UK) propane-1,2-diol	EH40/2005 WELs (United Kingdom (UK), 8/2007). TWA: 10 mg/m ³ 8 hour(s). Form: Particulate TWA: 474 mg/m ³ 8 hour(s). Form: Sum of vapour and particulates TWA: 150 ppm 8 hour(s). Form: Sum of vapour and particulates
Austria No exposure limit value known.	
Switzerland No exposure limit value known.	
Belgium No exposure limit value known.	
Spain No exposure limit value known.	
Turkey No exposure limit value known.	

Date of issue : 28/06/2011.

3/8

8. Exposure controls/personal protection

Czech Republic

No exposure limit value known.

Ireland

propane-1,2-diol

NAOSH (Ireland, 8/2007).

OELV-8hr: 10 mg/m³ 8 hour(s). Form: particulate

OELV-8hr: 470 mg/m³ 8 hour(s). Form: vapour and particulates

OELV-8hr: 150 ppm 8 hour(s). Form: vapour and particulates

Italy

No exposure limit value known.

Estonia

chlorocresol

Sotsiaalminister (Estonia, 10/2007).

STEL: 6 mg/m³ 15 minute(s).

TWA: 3 mg/m³ 8 hour(s).

Lithuania

propane-1,2-diol

Del Lietuvos Higienos Normos (Lithuania, 10/2007).

TWA: 7 mg/m³ 8 hour(s).

chlorocresol

Del Lietuvos Higienos Normos (Lithuania, 10/2007).

STEL: 6 mg/m³ 15 minute(s).

TWA: 3 mg/m³ 8 hour(s).

Slovakia

No exposure limit value known.

Hungary

No exposure limit value known.

Poland

No exposure limit value known.

Slovenia

No exposure limit value known.

Latvia

propane-1,2-diol

LV Nat. Standardisation and Meterological Centre (Latvia, 5/2007).

TWA: 7 mg/m³ 8 hour(s).

Greece

No exposure limit value known.

Portugal

No exposure limit value known.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Exposure controls

Occupational exposure controls : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

8. Exposure controls/personal protection

- Respiratory protection** : Recommended: None assigned.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. <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 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
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

General information

Appearance

- Physical state** : Liquid.
- Colour** : Colourless to light yellow.
- Odour** : Characteristic.

Important health, safety and environmental information

- Relative density** : 1.07
- Solubility** : Easily soluble in the following materials: cold water and hot water.
- VOC content** : 0 % (w/w) [ISO % 11890-2]

10. Stability and reactivity

- Stability** : The product is stable.
- 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

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : Acute oral toxicity (LD50) Rat >2000 mg/Kg No known significant effects or critical hazards.
- Skin contact** : May cause sensitisation by skin contact.
- Eye contact** : Irritating to eyes.

Acute toxicity

Over-exposure signs/symptoms

12. Ecological information

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
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12. Ecological information

chlorocresol	-	Acute EC50 2300 to 2670 ppb Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	-	Acute EC50 1500 to 1940 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - 24 hours	48 hours
	-	Acute LC50 917 ppb Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss	96 hours
	-	Acute LC50 7560 to 8920 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 31 to 35 days - 106 mg	96 hours
	-	Acute LC50 7380 to 8710 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 31 days - 0.106 g	96 hours
	-	Acute LC50 6710 to 7760 ug/L Fresh water	Fish - Guppy - Poecilia reticulata - 2 to 3 months - 1.8 cm - 69 mg	96 hours
	-	Acute LC50 4050 to 5270 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 30 days - 19.1 mm - 0.1 g	96 hours
	-	Acute LC50 4050 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 26 to 34 days	96 hours
	-	Acute LC50 2000 to 2200 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	-	Acute LC50 1000 to 10000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours

Biodegradability

Other adverse effects

: No known significant effects or critical hazards.

AOX

: The product contains organically bound halogens and can contribute to the AOX value in waste water.

13. Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

16 03 03* inorganic wastes containing dangerous substances

Hazardous waste : Yes.

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.

Hazard symbol or symbols :



Irritant

Risk phrases

: R36- Irritating to eyes.
R43- May cause sensitisation by skin contact.

Safety phrases

: S2- Keep out of the reach of children.
S24- Avoid contact with skin.
S37- Wear suitable gloves.
S46- If swallowed, seek medical advice immediately and show this container or label.

Contains

: chlorocresol 200-431-6

Product use

: Consumer applications.

Germany

Hazard class for water : 2 Appendix No. 4

Italy

Emission control directive : Not classified.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - Europe : R21/22- Harmful in contact with skin and if swallowed.
 R41- Risk of serious damage to eyes.
 R36- Irritating to eyes.
 R43- May cause sensitisation by skin contact.
 R50- Very toxic to aquatic organisms.

Full text of classifications referred to in sections 2 and 3 - Europe : Xn - Harmful
 Xi - Irritant
 N - Dangerous for the environment

History

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 Version : 2
 Prepared by : Not available.

✔ Indicates information that has changed from previously issued version.

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 REACH 1907/2006 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.