

SAFETY DATA SHEET



Powerflow Paste

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

Product name : Powerflow Paste
Code : 24543
Head Office : **Cookson Electronics** **Manufacturer** : Ashford Manufacturing Site
 Forsyth Road Henwood Industrial Estate
 Sheerwater Hythe Road
 Woking Ashford
 Surrey Kent
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 Tel: +44(0)1483 758400 Tel: +44 (0) 1233 610110
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2. Composition/information on ingredients

Substance/Preparation : Preparation

Chemical name*	CAS no.	%	EC Number	Classification
Europe nonylphenoxydiglycol	68412-54-4	20-30	500-209-1	Xn; R22 Xi; R41 R53
Hydrochloric acid	7647-01-0	1-5	231-595-7	C; R34 Xi; R37
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 classified as dangerous according to Directive 1999/45/EC and its amendments.

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Classification : Xi; R41
Classification : Xi; R41
Classification : Xi; R41
Classification : Xi; R41
 V; R322

Effects and symptoms

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

Eye Contact : Very hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering and itching.

Aggravating conditions : Repeated or prolonged exposure is not known to aggravate medical condition.

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. 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. 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. Cold water may be used. 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 immediately.

5. Fire-fighting measures

Extinguishing Media

Suitable : Not applicable.

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

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 cleanup methods : Use a shovel to put the material into a convenient waste disposal container.

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

7. Handling and storage

Handling : No specific safety phrase has been found which is applicable for this product.

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.

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
Europe Hydrochloric acid	EU OEL (Europe, 2000). Notes: Indicative STEL: 15 mg/m ³ 15 minute(s). STEL: 10 ppm 15 minute(s). TWA: 8 mg/m ³ 8 hour(s). TWA: 5 ppm 8 hour(s).
Sweden Hydrochloric acid	AFS (Sweden, 2000). TGV: 8 mg/m ³ TGV: 5 ppm KTV: 8 mg/m ³ 15 minute(s). KTV: 5 ppm 15 minute(s).
Denmark Hydrochloric acid	Arbejdstilsynet (Denmark, 2000). Loftværdi: 7 mg/m ³ Loftværdi: 5 ppm GV: 7 mg/m ³ 8 hour(s). GV: 5 ppm 8 hour(s).
Norway Hydrochloric acid	Arbejdstilsynet (Norway, 2001). AN: 7 mg/m ³ 8 hour(s). AN: 5 ppm 8 hour(s).
France Hydrochloric acid	INRS (France, 1999). Notes: Not Legal VLE: 7.5 mg/m ³ 15 minute(s). VLE: 5 ppm 15 minute(s).
Netherlands Hydrochloric acid	Nationale MAC-lijst (Netherlands, 2001). Notes: Tentative TGG 15 min: 15 mg/m ³ 15 minute(s). TGG 15 min: 10 ppm 15 minute(s). TGG 8 uur: 8 mg/m ³ 8 hour(s). TGG 8 uur: 5 ppm 8 hour(s).
Germany	

Powerflow Paste

Hydrochloric acid

MAK-Werte Liste (Germany, 2000).

Spitzenbegrenzung: 7.6 mg/m³ 15 minute(s).

Spitzenbegrenzung: 5 ML/M3 15 minute(s).

TWA: 7.6 mg/m³ 8 hour(s).

TWA: 5 ML/M3 8 hour(s).

TRGS900 MAK (Germany, 2001).

Spitzenbegrenzung: 8 mg/m³

TWA: 8 mg/m³ 8 hour(s).

Finland

Hydrochloric acid

Työterveyslaitos (Finland, 2001).

STEL: 7.6 mg/m³ 15 minute(s).

STEL: 5 ppm 15 minute(s).

United Kingdom (UK)

nonylphenoxydiglycol

Not available.

Hydrochloric acid

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

STEL: 8 mg/m³ 15 minute(s).

STEL: 5 ppm 15 minute(s).

TWA: 2 mg/m³ 8 hour(s).

TWA: 1 ppm 8 hour(s).

Austria

Hydrochloric acid

BMWA_MAK (Austria, 2001).

Spitzenbegrenzung: 16 mg/m³ 8 times per shift, 5 minute(s).

Spitzenbegrenzung: 10 ppm 8 times per shift, 5 minute(s).

TWA: 8 mg/m³ 8 hour(s).

TWA: 5 ppm 8 hour(s).

Switzerland

Hydrochloric acid

SUVA (Switzerland, 2001). Notes: Not Temporary

Kurzzeitsgrenzwerte: 7.5 mg/m³ 15 minute(s).

Kurzzeitsgrenzwerte: 5 ppm 15 minute(s).

MAK: 7.5 mg/m³ 8 hour(s).

MAK: 5 ppm 8 hour(s).

Belgium

Hydrochloric acid

Lijst Grenswaarden (Belgium, 1998).

VCD: 15 mg/m³ 15 minute(s).

VCD: 10 ppm 15 minute(s).

VL: 8 mg/m³ 8 hour(s).

VL: 5 ppm 8 hour(s).

Spain

Hydrochloric acid

INSHT (Spain, 2001).

STEL: 15 mg/m³ 8 hour(s).

STEL: 10 ppm 8 hour(s).

TWA: 7.6 mg/m³ 8 hour(s).

TWA: 5 ppm 8 hour(s).

Personal protective equipment

- Skin and body** : Lab coat.
- Eyes** : Splash goggles.

9. Physical and chemical properties

- Physical state** : Solid.
- Colour** : White to yellowish.
- Odour** : Characteristic.
- pH** : Not available.
- Flash point** : Not applicable.
- 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** : 1.1 g/cm³ (20°C / 68°F)
- Solubility** : Partially soluble in cold water, hot water.

10. Stability and reactivity

Stability : The product is stable.

Hazardous decomposition products :

11. Toxicological information

Acute toxicity

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
2,2'-Iminodiethanol	LD50	2200 mg/kg	Oral	Rabbit
	LD50	3300 mg/kg	Oral	Mouse
Ethylamine	LD50	400 mg/kg	Oral	Rat

Local effects

Eye irritation : Very hazardous in case of eye contact (irritant).

Chronic toxicity : Repeated or prolonged exposure is not known to aggravate medical condition.

12. Ecological information

Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
2,2'-Iminodiethanol	Pimephales promelas (LC50)	96 hours	100 mg/l
	Daphnia magna (LC50)	96 hours	100 mg/l
	Pimephales promelas (LC50)	96 hours	>100 mg/l
	Daphnia magna (LC50)	96 hours	>100 mg/l
	Pimephales promelas (LC50)	96 hours	1370 mg/l
	Pimephales promelas (LC50)	96 hours	1480 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 : The classification of the product may meet the criteria for a hazardous waste

14. Transport information

International transport regulations

<u>Regulatory Information</u>	<u>UN number</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>Packing group</u>	<u>Label</u>	<u>Additional Information</u>
ADR/RID Class	Not regulated.	-	-	III		-
IMDG Class	Not regulated.	-	-	III		-
IATA-DGR Class	Not regulated.	-	-	III		-

15. Regulatory information

EU Regulations

Hazard symbol(s)	:	
		Irritant
Indication of Danger	:	Irritant
Risk Phrases	:	R41- Risk of serious damage to eyes.
Safety Phrases	:	S2- Keep out of the reach of children. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S39- Wear eye/face protection.
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.
EC Statistical Classification (Tariff Code)	:	32089091

National regulations

Moderately harmful

Denmark

Additional Warning Phrases	:	Not applicable.
Denmark – Cancer Risks	:	Not available.
Denmark – Restrictions on Use	:	Not available.
Statutory Order 571 on Aerosols	:	Not applicable.

Netherlands

K-Klasse	:	K5
CPR	:	j
SHHR	:	2IZ

Germany

Employment restrictions in accordance with § 15b of the Hazardous Substance Ordinance	:	Yes.
Hazardous Incident Ordinance	:	No.
Ordinance on Combustible Liquids	:	Class: Omitted
Hazard class for water	:	3

16. Other information

Full text of R-Phrases with no. appearing in Section 2 - Europe	:	R22- Harmful if swallowed. R34- Causes burns. R37- Irritating to respiratory system. R41- Risk of serious damage to eyes. R53- May cause long-term adverse effects in the aquatic environment.
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Text of classifications appearing in Section 2 - Europe	:	C - Corrosive Xn - Harmful Xi - Irritant
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Notice to Reader

Powerflow Paste

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.

Version 1

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