


SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Miracle Seal
- **Article number:** MS 740103
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product Use** [SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites;
- [PC37] Water treatment chemicals;
- **Application of the substance / the preparation** Domestic, Commercial, Industrial and Automotive Heating Systems.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
C-Tec N.I Limited
Unit 6 Ashtree Enterprise Park,
Rathfriland Road, Newry, Co.Down,
N. Ireland, BT34 1BY.
Email: info@ct1ltd.com
- **Website:** www.ct1ltd.com
- **Further information obtainable from:**
Product safety department.
info@ct1ltd.com
- **1.4 Emergency telephone number:**
Tel: +44(0)28 3083 4892 (Monday – Friday 9am - 5pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification - EC 1272/2008	Repr. 1B: H360FD;
2.2. Label elements	
Hazard pictograms	
Signal Word	Danger
Hazard Statement	1B: H360FD - May damage fertility. May damage the unborn child.
Precautionary Statement: Prevention	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P308+P313 - IF exposed or concerned: Get medical advice/attention.
Precautionary Statement: Storage	P405 - Store locked up.
Precautionary Statement: Disposal	P501 - Dispose of contents/container to a facility that complies with all local, state, region, national and international regulations.

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SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterization: Mixtures

67/548/EEC / 1999/45/EC

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification	M-factor.
Mono ethylene glycol (Ethane-1,2-diol particulate)	603-027-00-1	107-21-1	203-473-3	01-2119456816-28	20 - 30%	Xn; R22	
disodium tetraborate decahydrate	005-011-01-1	1303-96-4	215-540-4		1 - 10%	Repr. Cat. 2; R60-61	
EC 1272/2008							
Mono ethylene glycol (Ethane-1,2-diol particulate)	603-027-00-1	107-21-1	203-473-3	01-2119456816-28	20 - 30%	Acute Tox. 4; H302;	
disodium tetraborate decahydrate	005-011-01-1	1303-96-4	215-540-4		1 - 10%	Repr. 1B; H360FD;	

SECTION 4: First aid measures

· 4.1. Description of first aid measures

- **Inhalation** May cause dizziness and headache. Move the exposed person to fresh air. Seek medical attention.
- **Eye contact** May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
- **Skin contact** May cause irritation to skin. May cause dermatitis. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
- **Ingestion** Harmful if swallowed. May cause dizziness and headache. Ingestion may cause nausea and vomiting. Ingestion is irritating to the respiratory tract and may cause damage to the central nervous system. DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label.

SECTION 5: Firefighting measures

· 5.1. Extinguishing media

Use as appropriate: Carbon dioxide (CO₂), Dry chemical, Foam.

· 5.2. Special hazards arising from the substance or mixture

Burning produces irritating, toxic and obnoxious fumes.

· 5.3. Advice for firefighters

Self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

· 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation of the working area. Wear suitable protective equipment.

· 6.2. Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe.

· 6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

· 6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection.

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SECTION 7: Handling and storage

· 7.1. Precautions for safe handling

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing.

· 7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated area. Keep containers tightly closed.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· 8.1.1. Exposure Limit Values

Mono ethylene glycol (Ethane-1,2-diol particulate)	WEL 8-hr limit ppm: -	WEL 8-hr limit mg/m3: 10
	WEL 15 min limit ppm: -	WEL 15 min limit mg/m3: -
	WEL 8-hr limit mg/m3 total inhalable dust: -	WEL 15 min limit mg/m3 total inhalable dust: -
	WEL 8-hr limit mg/m3 total respirable dust: -	WEL 15 min limit mg/m3 total respirable dust: -
Mono ethylene glycol (Ethane-1,2-diol vapour)	WEL 8-hr limit ppm: 20	WEL 8-hr limit mg/m3: 52
	WEL 15 min limit ppm: 40	WEL 15 min limit mg/m3: 104
	WEL 8-hr limit mg/m3 total inhalable dust: -	WEL 15 min limit mg/m3 total inhalable dust: -
	WEL 8-hr limit mg/m3 total respirable dust: -	WEL 15 min limit mg/m3 total respirable dust: -

· 8.2. Exposure controls

· 8.2.1. **Appropriate engineering controls** Ensure adequate ventilation of the working area.

· 8.2.2. **Individual protection measures** Wear chemical protective clothing.

· **Eye / face protection** Approved safety goggles.

· **Skin protection** -

· **Handprotection** Chemical resistant gloves (PVC).

Respiratory protection Self-contained breathing apparatus. Wear protective clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

Appearance Liquid

Colour Brown

Odour Mild

Odour threshold No data available

pH Not applicable.

Melting point Not applicable.

Freezing Point No data available

Initial boiling point No data available

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Flash point Not applicable.
Evaporation rate No data available
Flammability (solid, gas) No data available
Vapour pressure No data available
Vapour density No data available
Relative density Not applicable.
Fat Solubility No data available
Partition coefficient No data available
Autoignition temperature No data available
Viscosity > 90 mPas (Cone & Plate)
Explosive properties No data available
Oxidising properties No data available
Solubility Not applicable.
· 9.2. Other information
Conductivity No data available
Surface tension No data available
Gas group No data available
Benzene Content No data available
Lead content No data available
VOC (Volatile organic compounds) No data available

SECTION 10: Stability and reactivity

- **10.1. Reactivity** No precautions required to be mentioned.
- **10.2. Chemical stability** Stable under normal conditions.
- **10.3. Possibility of hazardous reactions** No data is available on this product.
- **10.4. Conditions to avoid** Heat will increase pressure in sealed containers.
- **10.5. Incompatible materials** Keep away from food, drink and animal feedingstuffs.
- **10.6. Hazardous decomposition products** Burning produces irritating, toxic and obnoxious fumes.

SECTION 11: Toxicological information

· 11.1.4. Toxicological Information

disodium tetraborate decahydrate	Oral Rat LD50: 6000mg/kg Inhalation Rat LC50/4 h: >2.0mg/l	Dermal Rabbit LD50: >2000mg/kg
Mono ethylene glycol	Oral Rat LD50: 4700mg/kg	

SECTION 12: Ecological information

12.1. Toxicity

disodium tetraborate decahydrate	Fish LC50/96h: 74.0000 mg/l
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- **12.2. Persistence and degradability** No data is available on this product.
- **12.3. Bioaccumulative potential**
- **Partition coefficient - Miracle Seal** No data available
- **12.4. Mobility in soil** No data is available on this product.

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Miracle Seal**SECTION 13: Disposal considerations****General information**

Dispose of in compliance with all local and national regulations.

Disposal methods

For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

Disposal of packaging

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14: Transport information

- **14.1 UN-Number** The product is not classified as dangerous for carriage.
- **14.2 UN proper shipping name** The product is not classified as dangerous for carriage.
- **14.3 Transport hazard class(es)** The product is not classified as dangerous for carriage.
- **14.4 Packing group** The product is not classified as dangerous for carriage.
- **14.5 Environmental hazards:** The product is not classified as dangerous for carriage.
- **14.6 Special precautions for user** The product is not classified as dangerous for carriage.
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

SECTION 16: Other information**Revision This document differs from the previous version in the following areas:**

- 1 - Product Use.
- 2 - Precautionary Statement: Disposal.
- 4 - Inhalation.
- 4 - Ingestion.
- 6 - 6.4. Reference to other sections.
- 10 - 10.4. Conditions to avoid.
- 10 - 10.3. Possibility of hazardous reactions.
- 10 - 10.6. Hazardous decomposition products.
- 10 - 10.1. Reactivity.
- 10 - 10.5. Incompatible materials.

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12 - 12.1. Toxicity.

12 - 12.4. Mobility in soil.

12 - 12.2. Persistence and degradability.

13 - Disposal methods.

13 - Disposal of packaging.

15 - 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Text of risk phrases in Section 3

R22 - Harmful if swallowed.

R60 - May impair fertility.

R61 - May cause harm to the unborn child.

Text of Hazard Statements in Section 3

Acute Tox. 4: H302 - Harmful if swallowed.

Repr. 1B: H360FD - May damage fertility. May damage the unborn child.

Further information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.