



SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

Page 1/5

OPUS ANTIFREEZE 50/50

Revision 2

Revision date 2017-01-26

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

1.1. Product identifier

Product name OPUS ANTIFREEZE 50/50

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; [PC4] Anti-Freeze and de-icing products;

1.3. Details of the supplier of the safety data sheet

Company Ferguson & Menzies Ltd
Address 312 Broomloan Road
Glasgow G51 2JW
Web www.fergusonmenzies.co.uk
Telephone 0141-445 3555
Fax 0141-425 1079
Email info@fergusonmenzies.co.uk
Email address of the competent person info@fergusonmenzies.co.uk

1.4. Emergency telephone number


Emergency telephone number 0141-445-3555
09.00 - 17.00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification - 1999/45/EC
Xn; R22
Symbols: Xn: Harmful.
Main hazards Harmful if swallowed.
2.1.2. Classification - EC 1272/2008
Acute Tox. 4: H302; Repr. 1B: H360FD;

2.2. Label elements

Hazard pictograms 

Signal Word Danger

Hazard Statement Acute Tox. 4: H302 - Harmful if swallowed.
Repr. 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.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

OPUS ANTIFREEZE 50/50

Revision 2

Revision date 2017-01-26

2.2. Label elements

| | |
|--------------------------------------|--|
| Precautionary Statement: Response | P280 - Wear protective gloves/protective clothing/eye protection/face protection. |
| | P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/ /if you feel unwell. P308+P313 - IF exposed or concerned: Get medical advice/attention. P330 - Rinse mouth. |
| Precautionary Statement: Storage | P405 - Store locked up. |
| Precautionary Statement: Disposal | P501 - Dispose of contents/container to |

SECTION 3: Composition/information on ingredients

3.2. Mixtures

67/548/EEC / 1999/45/EC

| Chemical Name | Index No. | CAS No. | EC No. | REACH Registration Number | Conc. (%w/w) | Classification | M-factor. |
|--|--------------|------------|-----------|---------------------------|--------------|----------------------|-----------|
| ETHANEDIOL (Ethane-1,2-diol particulate) | 603-027-00-1 | 107-21-1 | 203-473-3 | | 40 - 50% | Xn; R22 | |
| disodium tetraborate pentahydrate | 005-011-02-9 | 12179-04-3 | 215-540-4 | | 1 - 10% | Repr. Cat. 2; R60-61 | |

EC 1272/2008

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SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|--------------|---|
| Inhalation | Harmful by inhalation. Inhalation may cause nausea and vomiting. 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. 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. |

4.2. Most important symptoms and effects, both acute and delayed

| | |
|--------------|------------------------------------|
| Inhalation | Coughing, difficulty in breathing. |
| Skin contact | Itching. |
| Ingestion | Headache, nausea and vomiting. |

4.3. Indication of any immediate medical attention and special treatment needed

| | |
|--------------|---|
| Inhalation | Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. |
| Skin contact | If skin irritation or rash occurs: Get medical advice/attention. |

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
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| | 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. |
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OPUS ANTIFREEZE 50/50

Revision 2

Revision date 2017-01-26

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

See section 8 for further information.

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.

7.3. Specific end use(s)

See section 1.2 for further information.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

| | | |
|--|---|---|
| ETHANEDIOL (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: - |
| ETHANEDIOL (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

OPUS ANTIFREEZE 50/50

Revision 2
Revision date 2017-01-26

9.1. Information on basic physical and chemical properties

| | |
|--------------------------|-------------------------------------|
| Appearance | Liquid |
| Colour | Blue |
| Odour | Odourless |
| Melting point | -12 °C |
| Freezing Point | -33 °C |
| Initial boiling point | 165 °C |
| Flash point | 111 °C |
| Vapour pressure | 0.05 Pa |
| Vapour density | 2.14 g/cm ³ |
| Relative density | 1.13 (H ₂ O = 1 @ 20 °C) |
| Autoignition temperature | 400 |
| Viscosity | 21 |
| Solubility | Miscible in water |

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid

Heat, sparks and open flames.

10.5. Incompatible materials

Strong oxidising agents.

10.6. Hazardous decomposition products

Do not breathe gas/fumes/vapour/spray.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Repeated or prolonged exposure may cause dermatitis.

11.1.4. Toxicological Information

| | | |
|-----------------------|-----------------------------|---------------------------------|
| OPUS ANTIFREEZE 50/50 | Dermal Rat LD50: 5010 mg/kg | Oral Rat LD50: 5890-13400 mg/kg |
|-----------------------|-----------------------------|---------------------------------|

SECTION 12: Ecological information

12.1. Toxicity

| | | |
|-----------------------|-----------------------------------|--------------------------------|
| OPUS ANTIFREEZE 50/50 | Daphnia EC50/48h: 41000.0000 mg/l | Fish LC50/96h: 22810.0000 mg/l |
|-----------------------|-----------------------------------|--------------------------------|

12.2. Persistence and degradability

Not readily biodegradable.

SECTION 13: Disposal considerations

General information

Dispose of in compliance with all local and national regulations.

Disposal methods

OPUS ANTIFREEZE 50/50

Revision 2

Revision date 2017-01-26

Disposal methods

Contact a licensed waste disposal company.

Disposal of packaging

Dispose of in compliance with all local and national regulations.

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

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on 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

Other information

| | |
|---|---|
| Revision | This document differs from the previous version in the following areas: 9 - 9.1. Information on basic physical and chemical properties (Freezing Point). |
| 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.