



SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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OPUS ANTIFREEZE 4XHD

Revision 2

Revision date 2016-10-05

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

1.1. Product identifier

Product name OPUS ANTIFREEZE 4XHD

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; [SU17] General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment; [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.

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2.2. Label elements

Precautionary Statement: Response	P270 - Do no eat, drink or smoke when using this product. 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			Xn; R22	
disodium tetraborate pentahydrate	005-011-02-9	12179-04-3	215-540-4			Repr. Cat. 2; R60-61	
Sodium Benzoate		532-32-1	208-534-8			Xi; R36	
Sodium nitrite	007-010-00-4	7632-00-0	231-555-9			O; R8 T; R25 N; R50	

EC 1272/2008

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			Acute Tox. 4: H302;	
disodium tetraborate pentahydrate	005-011-02-9	12179-04-3	215-540-4			Repr. 1B: H360FD;	
Sodium Benzoate		532-32-1	208-534-8			Eye Irrit. 2: H319;	
Sodium nitrite	007-010-00-4	7632-00-0	231-555-9			Ox. Sol. 3: H272; Acute Tox. 3: H301; Aquatic Acute 1: H400;	

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

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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

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/m ³ : 10
	WEL 15 min limit ppm: -	WEL 15 min limit mg/m ³ : -
	WEL 8-hr limit mg/m ³ total - inhalable dust:	WEL 15 min limit mg/m ³ total - inhalable dust:
	WEL 8-hr limit mg/m ³ total - respirable dust:	WEL 15 min limit mg/m ³ total - respirable dust:
ETHANEDIOL (Ethane-1,2-diol vapour)	WEL 8-hr limit ppm: 20	WEL 8-hr limit mg/m ³ : 52
	WEL 15 min limit ppm: 40	WEL 15 min limit mg/m ³ : 104
	WEL 8-hr limit mg/m ³ total - inhalable dust:	WEL 15 min limit mg/m ³ total - inhalable dust:
	WEL 8-hr limit mg/m ³ total - respirable dust:	WEL 15 min limit mg/m ³ total - respirable dust:

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Ensure adequate ventilation of the working area.

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8.2. Exposure controls

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

Appearance	Liquid
Colour	Colourless
Odour	Odourless
pH	8.2
Freezing Point	-20 - -37
Initial boiling point	197 °C
Vapour pressure	0.05 Pa
Vapour density	2.14 g/cm ³
Relative density	1.119 (H ₂ O = 1 @ 20 °C)
Solubility	Miscible in water

SECTION 10: Stability and reactivity

10.1. Reactivity

	No data available.
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10.2. Chemical stability

	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

	Hazardous reactions will not occur under normal transport or storage conditions.
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10.4. Conditions to avoid

	Heat, sparks and open flames.
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10.5. Incompatible materials

	Strong oxidising agents.
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10.6. Hazardous decomposition products

	Do not breathe gas/fumes/vapour/spray.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

	Repeated or prolonged exposure may cause dermatitis.
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11.1.4. Toxicological Information

OPUS ANTIFREEZE 4XHD	Inhalation Rat LC50/6 h: 2.5	Oral Rat LD50: 7712 mg/kg
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SECTION 12: Ecological information

12.1. Toxicity

OPUS ANTIFREEZE 4XHD	Daphnia EC50/48h: 100.0000 mg/l Green algae EC50/96h: 6500	Fish LC50/96h: 72860.0000 mg/l
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12.2. Persistence and degradability

	Not readily biodegradable.
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SECTION 13: Disposal considerations

General information

Dispose of in compliance with all local and national regulations.

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:.

2 - Hazard pictograms.

9 - 9.1. Information on basic physical and chemical properties (PH).

9 - 9.1. Information on basic physical and chemical properties (Melting point).

9 - 9.1. Information on basic physical and chemical properties (Flash point).

9 - 9.1. Information on basic physical and chemical properties (Autoignition temperature).

9 - 9.1. Information on basic physical and chemical properties (Relative density).

9 - 9.1. Information on basic physical and chemical properties (Freezing Point).

9 - 9.1. Information on basic physical and chemical properties (Lower Explosive Limit).

9 - 9.2. Other information (Partition coefficient).

Text of risk phrases in Section 3

R8 - Contact with combustible material may cause fire.

R22 - Harmful if swallowed.

R25 - Toxic if swallowed.

R36 - Irritating to eyes.

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Other information

Text of Hazard Statements in Section 3	R50 - Very toxic to aquatic organisms. R60 - May impair fertility. R61 - May cause harm to the unborn child.
	Acute Tox. 4: H302 - Harmful if swallowed. Repr. 1B: H360FD - May damage fertility. May damage the unborn child. Eye Irrit. 2: H319 - Causes serious eye irritation. Ox. Sol. 3: H272 - May intensify fire; oxidiser. Acute Tox. 3: H301 - Toxic if swallowed. Aquatic Acute 1: H400 - Very toxic to aquatic life.

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.
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