SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

Zerocol Red Antifreeze

Revision 1

Revision date 2014-02-03

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

1.1. Product identifier

Product name	Zerocol Red Antifreeze

1.3. Details of the supplier of the safety data sheet

Company	Granville Oil & Chemicals Ltd
Address	29 Goldthorpe Industrial Estate Goldthorpe, Rotherham, S63 9BL ENGLAND
Telephone	+44 (0) 1709 890099
Fax	+44 (0) 1709 891121

1.4. Emergency telephone number

Emergency telephone number	+44 (0)1709 890099 830am - 5.00pm Monday - Friday

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.

2.2. Label elements

Symbols	Xn: Harmful.
Risk phrases	R22 - Harmful if swallowed.
Safety phrases	S2 - Keep out of the reach of children. S20 - When using do not eat or drink. S46 - If swallowed, seek medical advice immediately and show this container or label.

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
Mono ethylene glycol (Ethane-1,2-diol particulate)	603-027-00-1	107-21-1	203-473-3		90 - 100%	Xn; R22

SECTION 4: First aid measures

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4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. Keep the affected person warm and at rest. If breathing is difficult give oxygen. Consult a physician if necessary.
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. Do not apply neutralising agents. Eye contact may provoke redness and pain.
Skin contact	Take off immediately all contaminated clothing. Wash off immediately with plenty of soap and water. Seek medical attention if irritation or symptoms persist.
Ingestion	Drink plenty of water. Never give anything by mouth to an unconscious person. Induce vomiting only if person is conscious. Get medical advice/attention if you feel unwell. Additional Advice:. First aider needs to protect himself. Notes for physician - treat symptomatically. Show this safety data sheet to the doctor in attendance. When symptoms persist or in all cases of doubt seek medical advice. HARMFUL IF SWALLOWED. Ingestion may provoke: Abdominal pain, feeling of weakness, vomiting, unconsciousness.

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

Inhalation	MAY CAUSE RESPIRATORY TRACT IRRITATION. Inhalation may provoke cough, dizziness, headache.
Skin contact	May be irritating. Skin contact may provoke dry skin symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical. Water spray. Do NOT use high volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazards. combustible material.

5.3. Advice for firefighters

Ensure adequate ventilation of the working area. Evacuate personnel to a safe area. Possible decomposition products are:. Carbon oxides. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Self-contained breathing apparatus. Cool fire exposed containers with waterspray.

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. Do not breathe vapours or spray mist. Avoid contact with skin and eyes. Eliminate all sources of ignition.

6.2. Environmental precautions

Do not allow product to enter drains. Do not flush into surface water. Prevent further spillage if safe.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water. Dispose of in accordance with local and national regulations. Advise local authorities if large spills cannot be contained.

Further information

Advice for emergency responders: only qualified personnel equipped with suitable protective equipment may intervene.

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. Wear suitable protective equipment. Do not breathe vapours or spray. Always replace cap after use. Avoid sparks, flames, heat and sources of ignition. Do not burn, or use a cutting torch on, the empty drum. Do not

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7.1. Precautions for safe handling

puncture or incinerate. Handle in accordance with good industrial hygiene and safety practice. Avoid repeated or long lasting contact with skin. Wash hands before breaks and at end of work. Do no eat, drink or smoke when using this product. Launder contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers. Avoid sparks, flames, heat and sources of ignition. Do not store near or with any of the incompatible materials listed in section 10.

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: -
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

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Ensure adequate ventilation of the working area.
8.2.2. Individual protection measures	Wear protective clothing.
Eye / face protection	In case of splashing, wear:. Safety glasses. EN 166.
Skin protection - Handprotection	Polyethylene - neiprene gloves - nitrile rubber - PVC - Butyle rubber - PVA - polyurethane - Rubber (EN 374). The selection of specific gloves and time of use in a working area should also take into account other factors in the working area:, such as, but not limited to, other chemicals that are possibly used and the instructions'specification of the supplier of the gloves. .
Skin protection - Other	Wear suitable protective clothing.
Respiratory protection	Not required under normal use. In case of insufficient ventilation wear suitable respiratory equipment. Respirator with a full face mask (EN 136). Respirator with a half face mask (EN 140). Recommended filter type: A (EN 141). Use compressed air or fresh air breathing apparatus in closed compartments (EN 137).
8.2.3. Environmental exposure controls	The product should not be allowed to enter drains or watercourses or be deposited where it can affect ground or surface waters, Avoid transfer into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State	Liquid
Colour	Red
Odour	Mild
Flash point	102 °C
Upper Explosive Limit	15.3 %
Lower Explosive Limit	3.2 %
Relative density	1.13 (Water = 1 @ 20 °C)
Autoignition temperature	400 °C
Viscosity	0.027 mPas (Cone & Plate)
Solubility	Soluble in water

9.2. Other information

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9.2. Other information

VOC (Volatile organic compounds)	70 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

See also section 10.5, hygroscopic.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts violently with (some) acids; release of carbon dioxide. Reacts on exposure to water and heat with (some) metals. Strong oxizers, alkali metals and alksline earth metals may cause fire or explosions.

10.4. Conditions to avoid

Avoid sparks, flames, heat and sources of ignition. Protect from moisture.

10.5. Incompatible materials

Metals, oxidizing agents, acids and bases. Combustible material.

10.6. Hazardous decomposition products

Carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	HARMFUL IF SWALLOWED.
Respiratory or skin sensitisation	No sensitizaton effects reported.

11.1.4. Toxicological Information

Zerocol Red Antifreeze	**Oral Rat LD50:** >2000 mg/kg	**Dermal Rabbit LD50:** >2000 mg/kg

Not expected to be toxic.

Further information

Not classified (not classified due to data which are conclusive although insufficient for classification). pH: 8 @ 33%.

SECTION 12: Ecological information

12.1. Toxicity

No data is available on this product.

12.2. Persistence and degradability

Readily biodegradable.

12.3. Bioaccumulative potential

Does not bioaccumulate. Partition coefficient: n-octanol/water - not determined.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Ethanediol: not considered to be persistent, bioacculumating nor toxic (PBT). Not considered to be very persistent nor very bioaccululating (vPvB).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Where possible recycling is preferred to disposal or incineration. Collect and dispose of waste

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13.1. Waste treatment methods

	product at an authorised disposal facility. Dispose of in accordance with local regulations.

General information

	Dispose of in compliance with all local and national regulations.

Disposal of packaging

	Empty containers should be transported using a registered waste carrier to local recyclers for disposal in accordance with local and national regulations.

Further information

	Codes of Waste (2001/573/EC, 75/442/EEC, 91/689/EEC:. The following Waste Codes are only suggestions: 07 01 04* - other organic solvents, washing liquids and mother liquors, 150110 - packaging containing residues of or contaminated by dangerous substances. Waste codes should be assigned by the user, perferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

Further information

	The product is not classified as dangerous for carriage.

SECTION 15: Regulatory information

15.2. Chemical safety assessment

	Not required.

SECTION 16: Other information

Other information

Revision	This document differs from the previous version in the following areas:. 15 - Safety phrases.
Text of risk phrases in Section 3	R22 - Harmful if swallowed.
Maximum content of VOC	70 g/l.

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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