



SAFETY DATA SHEET ANTIFREEZE

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

1.1. Product identifier

Product name	ANTIFREEZE
Product number	BSA001, BSA002, BSA005, BSA025, NBS002, SFD127, BSA199, GFA025, DRP001, DRP002, DRP005, DRP199

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Antifreeze liquid.
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1.3. Details of the supplier of the safety data sheet

Supplier	TETROSYL LIMITED Bury Lancashire England BL9 7NY 0161 764 5981 0161 797 5899 info@tetrosyl.com
Manufacturer	TETROSYL LIMITED Bury Lancashire England BL9 7NY 0161 764 5981 0161 797 5899 info@tetrosyl.com

1.4. Emergency telephone number

Emergency telephone	+44 (0)161 764 5981
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H302 STOT RE 2 - H373
Environmental hazards	Not Classified

Human health See Section 11 for additional information on health hazards.

Environmental The product is not expected to be hazardous to the environment.

2.2. Label elements

ANTIFREEZE

Pictogram



Signal word

Warning

Hazard statements

H302 Harmful if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260 Do not breathe vapour/ spray.

P264 Wash contaminated skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P314 Get medical advice/ attention if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/ container in accordance with national regulations.

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

Contains

ETHANEDIOL

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ETHANEDIOL		60-100%
CAS number: 107-21-1	EC number: 203-473-3	REACH registration number: 01-2119456816-28-0000

Classification

Acute Tox. 4 - H302

STOT RE 2 - H373

DISODIUM TETRABORATE PENTAHYDRATE

2.5-<5.0%

CAS number: 1330-43-4

EC number: 215-540-4

REACH registration number: 01-2119490790-32-0000

Classification

Eye Irrit. 2 - H319

Repr. 1B - H360Fd

The full text for all hazard statements is displayed in Section 16.

Composition comments

The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from source of contamination. Get medical attention if any discomfort continues.

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Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. Get medical attention. Show this Safety Data Sheet to the medical personnel.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing and rinse skin thoroughly with water. Continue to rinse until pain disappears. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Effects may be delayed. Keep affected person under observation.
Inhalation	Irritation of nose, throat and airway.
Ingestion	May cause discomfort if swallowed. May cause unconsciousness, blindness and possibly death. Central nervous system depression.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	Irritation, burning, lachrymation, blurred vision after liquid splash.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	No unusual fire or explosion hazards noted.
Hazardous combustion products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Leave danger zone immediately.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces.
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6.2. Environmental precautions

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Environmental precautions Collect and dispose of spillage as indicated in Section 13.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up For waste disposal, see Section 13. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb spillage with non-combustible, absorbent material. Contact Health and Safety department on 6695 for further assistance.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Remove contamination with soap and water or recognised skin cleansing agent. Do not use organic solvents. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

No exposure limits known for ingredient(s).

ETHANEDIOL

Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m³ vapour

Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m³ vapour

Sk

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

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Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Wear apron or protective clothing in case of contact.
Hygiene measures	Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station. Wash contaminated clothing before reuse. Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Blue.
Odour	Odourless.
Odour threshold	Not determined.
pH	pH (diluted solution): 6-7.5 100g/l
Melting point	-12°C
Initial boiling point and range	197°C @ 760 mm Hg
Flash point	111°C CC (Closed cup).
Evaporation rate	Not determined.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 3.2
Vapour pressure	0.05 kPa @ °C
Vapour density	2.14
Relative density	1.1 @ 20°C
Solubility(ies)	100 @ °C Miscible with the following materials: acetone Alcohols. Miscible with water.
Partition coefficient	Not determined.
Auto-ignition temperature	400°C
Decomposition Temperature	Not determined.
Viscosity	21 cP @ 20°C

9.2. Other information

Other information	None.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Oxidising materials.
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10.2. Chemical stability

Stability	No particular stability concerns.
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10.3. Possibility of hazardous reactions

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Possibility of hazardous reactions Not determined.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time. Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Acids - oxidising.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No information available.

Acute toxicity - oral

ATE oral (mg/kg) 526.32

Specific target organ toxicity - single exposure

Target organs Central nervous system Heart and cardiovascular system Kidneys

Inhalation Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature. Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion May cause liver and/or renal damage. Irritating. Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain. Harmful: possible risk of irreversible effects if swallowed.

Skin contact Slightly irritating.

Eye contact May cause temporary eye irritation.

Acute and chronic health hazards This chemical can be hazardous when inhaled and/or touched.

Route of entry Ingestion.

Target organs Central nervous system Heart & cardiovascular system Kidneys

Medical symptoms Allergic rash. Delayed, often serious, breathing problems. Tachycardia (excessively rapid heart beat, including rapid and weak pulse). Unconsciousness, possibly death.

SECTION 12: Ecological Information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Acute toxicity - fish

LC₅₀, 96 hours: 72860 mg/l mg/l, Algae

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: >100mg/l mg/l, Daphnia magna

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Acute toxicity - aquatic plants IC₅₀, 72 hours: >6500mg/l mg/l, Fish

12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility The product is soluble in water.

Adsorption/desorption coefficient Not available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

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14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations	The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Dangerous Substances Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC. System of specific information relating to Dangerous Preparations. 2001/58/EC.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	03/02/2016
Revision	4
Supersedes date	17/01/2013
SDS status	Approved.
Hazard statements in full	H302 Harmful if swallowed. H319 Causes serious eye irritation. H360Fd May damage fertility. Suspected of damaging the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure.

The information provided in this document has been compiled on the basis of our current knowledge and is believed to be in accordance with the requirements of the Dangerous Substances Directive, Dangerous Preparations Directive and Safety Data Sheets Directive. The information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any particular conditions or process. The conditions and extent of storage and use of material are outside of our control and within the control of the possessor or user. Consequently it is the responsibility of the possessor or user to satisfy themselves as to the completeness of such information and the suitability of the material for their own particular circumstances, conditions or use.