



SAFETY DATA SHEET ANTIFREEZE

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name ANTIFREEZE
Product No. BSA001, BSA002, BSA005, BSA025, NBS001, NBS002, SFD127, BSA199, SAG001, SAG002, SAG005, SAG025, SAG199, GFA025, DRP001, DRP002, DRP005, DRP025, DRP199

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

Identified uses Antifreeze liquid.

1.3. Details of the supplier of the safety data sheet

Supplier TETROSYL LIMITED
BEVIS GREEN WORKS
WALMERSLEY
BURY
BL9 6RE
0161 764 5981
0161 797 5899
info@tetrosyl.com
Manufacturer TETROSYL LIMITED
BEVIS GREEN WORKS
WALMERSLEY
BURY
BL9 6RE
0161 764 5981
0161 797 5899
info@tetrosyl.com

1.4. Emergency telephone number

0161 764 5981

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H302
Environment	Not classified.

Classification (1999/45/EEC) Xn;R22.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.
Human health

See section 11 for additional information on health hazards.

ANTIFREEZE

Environment

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

2.2. Label elements

Contains ETHANEDIOL

Label In Accordance With (EC) No. 1272/2008



Signal Word Warning

Hazard Statements

H302 Harmful if swallowed.

Precautionary Statements

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

P102 Keep out of reach of children.

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

P264 Wash contaminated skin thoroughly after handling.

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

Supplementary Precautionary Statements

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures**

DISODIUM TETRABORATE PENTAHYDRATE	1-5%
CAS-No.: 12179-04-3	EC No.: 215-540-4
Classification (EC 1272/2008) Repr. 1B - H360FD	Classification (67/548/EEC) Repr. Cat. 2;R60,R61
ETHANEDIOL	60-100%
CAS-No.: 107-21-1	EC No.: 203-473-3
	Registration Number: 01-2119456816-28
Classification (EC 1272/2008) Acute Tox. 4 - H302	Classification (67/548/EEC) Xn;R22

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition Comments

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

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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.

Inhalation

Move injured person into fresh air and keep person calm under observation. If necessary, seek hospital and bring these instructions.

Ingestion

Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable take to hospital along with these instructions.

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing and flush with plenty of water until pain disappears. If discomfort persists transport to hospital and bring these instructions.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. 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 dependant of the concentration and the length of exposure. NOTE! Effects may be delayed. Keep affected person under observation.

Inhalation

Irritation of nose, throat and airway.

Ingestion

May cause discomfort if swallowed. Ingestion may result in unconsciousness, blindness and 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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

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

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

5.3. Advice for firefighters

Special Fire Fighting Procedures

No specific fire fighting procedure given.

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Protective equipment for fire-fighters
Leave danger zone immediately.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

For personal protection, see section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

6.3. Methods and material for containment and cleaning up

For waste disposal, see section 13. When dealing with a spillage, please consult the section relating to suitable protective measures. Provide ventilation and confine spill. Do not allow runoff to sewer. Absorb spillage with non-combustible, absorbent material. Contact Health and Safety department on 6147 or 6695 for further assistance.

6.4. 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**

Read and follow manufacturer's recommendations. Always remove grease with soap and water or skin cleaning agent, never use organic solvents. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

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)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ETHANEDIOL	WEL	20 ppm	10 mg/m ³	40 ppm	104 mg/m ³	Sk

WEL = Workplace Exposure Limit.
Sk = Can be absorbed through skin.

8.2. Exposure controls

Protective equipment



Process conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

ANTIFREEZE**Engineering measures**

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

Wear suitable respiratory protection.

Hand protection

Protective gloves and goggles must be used if there is a risk of direct contact or splash.

Eye protection

Wear tight-fitting goggles or face shield.

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

Wash contaminated clothing before reuse. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

Skin protection

Wear apron or protective clothing in case of contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	Liquid
Colour	Blue.
Odour	Odourless.
Solubility	Miscible with: Acetone Alcohol Miscible with water
Initial boiling point and boiling range (°C)	165°C 760 mm Hg
Melting point (°C)	Not determined. -12°C
Relative density	1.13 20°C
Vapour density (air=1)	Not determined. 2.14
Vapour pressure	Not determined. 0.05 kPa 20°C
Evaporation rate	Not determined.
pH-Value, Diluted Solution	6-7.5 100g/l
Viscosity	21 cP 20°C
Solubility Value (G/100G H ₂ O@20°C)	100
Decomposition temperature (°C)	Not determined.
Odour Threshold, Lower	Not determined.
Odour Threshold, Upper	Not determined.
Flash point (°C)	111 CC (Closed cup).
Auto Ignition Temperature (°C)	Not determined. 400°C
Flammability Limit - Lower(%)	Not determined. 3.2
Flammability Limit - Upper(%)	Not determined.

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Partition Coefficient
(N-Octanol/Water)
Not determined.
Oxidising properties
Not available.

9.2. Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reaction with: Oxidising materials.

10.2. Chemical stability

No particular stability concerns.

10.3. Possibility of hazardous reactions

Not determined.

10.4. 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

In case of fire, toxic gases (CO, CO₂, NO_x) may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxic Dose 1 - LD 50
5890 - 13400 mg/kg (oral rat)
Toxic Dose 2 - LD 50
5010 mg/kg (ipr-rat)
Toxicological information
No information available.

Target Organs
Central nervous system Heart & cardiovascular system Kidneys

Inhalation

Unlikely to be hazardous by inhalation because of the low vapour pressure of the substance at ambient temperature. Vapours may irritate throat and respiratory system and cause coughing.

Ingestion

May cause liver and/or renal damage. Irritating. May cause nausea, stomach pain and vomiting. Harmful: possible risk of irreversible effects if swallowed.

Skin contact

Slightly irritating.

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Eye contact

May cause temporary eye irritation.

Health Warnings

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.

Specific effects

May cause damage to the kidneys. Contains a substance/a group of substances with possible risk of harm to the unborn child and with possible risk of impaired fertility.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

LC 50, 96 Hrs, Fish mg/l 22810 mg/l

Acute Toxicity - Fish

Not available.

EC 50, 48 Hrs, Daphnia, mg/l 41000 mg/l

Acute Toxicity - Aquatic Invertebrates

Not available.

12.2. Persistence and degradability

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

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Not applicable.

SECTION 13: DISPOSAL CONSIDERATIONS

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General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point.

SECTION 14: TRANSPORT INFORMATION

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

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
Chemicals (Hazard Information & Packaging) Regulations.

EU Legislation

Dangerous Substance 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	17/01/2013
Revision	3
Supersedes date	02/07/2008 v2
Safety Data Sheet Status	Approved.
Risk Phrases In Full	

R22	Harmful if swallowed.
R61	May cause harm to the unborn child.
R60	May impair fertility.

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Hazard Statements In Full

H302	Harmful if swallowed.
H360FD	May damage fertility or the unborn child.

Disclaimer

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.