

SAFETY DATA SHEET

Anti-Freeze

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

1.1. Product identifier

Product name Anti-Freeze

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 Aztec Chemicals
 Unit 16, University Way
 Orion Park
 Crewe
 Cheshire
 CW1 6NG
 + 44 (0) 1270 655500 (T)
 + 44 (0) 1270 655501 (F)
 info@aztecchemicals.com

1.4. Emergency telephone number

Emergency telephone +44 (0)7831 300868

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

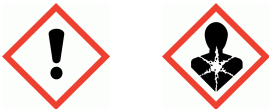
Classification

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

Classification (67/548/EEC or 1999/45/EC) Xn;R22.

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H302 Harmful if swallowed.
 H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements P501 Dispose of contents/container in accordance with local regulations.
 P102 Keep out of reach of children.
 P262 Do not get in eyes, on skin, or on clothing.
 P264 Wash contaminated skin thoroughly after handling.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Supplemental label information RCH002b For professional users only.

Anti-Freeze

Contains ETHANEDIOL

2.3. Other hazards

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

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 STOT RE 2 - H373	Xn;R22

2-ethylhexanoic acid, potassium salt		1-5%
CAS number: 3164-85-0	EC number: 221-625-7	REACH registration number: N/A

Classification	Classification (67/548/EEC or 1999/45/EC)
Repr. 2 - H361d	Repr. Cat. 3;R63.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if any discomfort continues.
Skin contact	Wash skin thoroughly with soap and water. Use suitable lotion to moisturise skin. Get medical attention if any discomfort continues.
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 and get medical attention.

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

Inhalation	Vapours in high concentrations are anaesthetic. Symptoms following overexposure to dust may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.
Ingestion	Ingestion of large amounts may cause unconsciousness.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

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

Anti-Freeze

Notes for the doctor

If several ounces (60 – 100 ml) of ethylene glycol have been ingested, early administration of ethanol may counter the toxic effects (metabolic acidosis, renal damage). Consider hemodialysis or peritoneal dialysis & thiamine 100 mg plus pyridoxine 50 mg intravenously every 6 hours. If ethanol is used, a therapeutically effective blood concentration in the range of 100-150 mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of the treatment. 4-Methyl pyrazole (Antizol ®) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of the ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol : loading dose 15 mg/kg intravenously, follow by bolus dose of 10 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Respiratory symptoms, including pulmonary oedema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. Maintain adequate ventilation and oxygenation of the patient. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. If burn is present, treat as any thermal burn, after decontamination. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog. Alcohol-resistant foam.

5.2. Special hazards arising from the substance or mixture

Specific hazards Oxides of carbon. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours. Ketones. Aldehydes.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

Anti-Freeze

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Avoid contact with skin and eyes. Avoid spilling. Avoid inhalation of vapours and spray/mists. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions 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

ETHANEDIOL

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

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

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Ingredient comments WEL = Workplace Exposure Limits

ETHANEDIOL (CAS: 107-21-1)

DNEL Industry - Inhalation; Short term : 35 mg/m³
 Industry - Dermal; Long term : 106 mg/kg/day
 Consumer - Dermal; Long term : 53 mg/kg/day
 Consumer - Inhalation; Long term : 7 mg/m³

PNEC - Fresh water; 10 mg/l
 - Marine water; 1 mg/l
 - Soil; 1.53 mg/l
 - STP; 199.5 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients. Provide adequate ventilation.

Personal protection

When using do not smoke

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield. Manufacture/tested in accordance with EN 166.

Anti-Freeze

Hand protection	Wear protective gloves. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Butyl rubber. Polyvinyl chloride (PVC). To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures	Eating, smoking and water fountains prohibited in immediate work area.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Particulate filters should comply with European Standard EN143. Disposable filtering half mask respirators should comply with European Standard EN149 or EN405.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Various colours.
Odour	Characteristic. Mild.
pH	pH (concentrated solution): 7
Initial boiling point and range	198°C @
Relative density	1.06 - 1.14 @ °C
Solubility(ies)	Soluble in water.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Strong acids. Strong alkalis.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Oxides of carbon.
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Anti-Freeze

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 526.31578947

Inhalation	Vapours may irritate throat/respiratory system. Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.
Ingestion	Harmful if swallowed. May cause liver and/or renal damage.
Skin contact	Prolonged and frequent contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.
Route of entry	Ingestion. Inhalation
Target organs	Liver Kidneys

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

Toxicity Not considered toxic to fish.

12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

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.

UN No. (IMDG)

UN No. (ICAO)

14.2. UN proper shipping name

Not applicable.

Anti-Freeze

14.3. Transport hazard class(es)

ADR/RID class

ADR/RID subsidiary risk

ADR/RID label

IMDG class

IMDG subsidiary risk

ICAO class/division

ICAO subsidiary risk

Transport labels

14.4. Packing group

Not applicable.

ADR/RID packing group

IMDG packing group

ICAO packing group

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

EmS

Emergency Action Code

Hazard Identification Number
(ADR/RID)

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Commission Regulation (EU) No 453/2010 of 20 May 2010.
Guidance	Workplace Exposure Limits EH40. CHIP for everyone HSG228. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

SECTION 16: Other information

Anti-Freeze

Revision date	07/05/2015
Revision	1
SDS number	10423
SDS status	Approved.
Risk phrases in full	R22 Harmful if swallowed. R63 Possible risk of harm to the unborn child.
Hazard statements in full	H302 Harmful if swallowed. H361d Suspected of damaging the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H373 May cause damage to organs through prolonged or repeated exposure if swallowed. H302 Harmful if swallowed. H361d Suspected of damaging the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

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 process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.