

1

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

1.1 Product identifier

Product Name Auto Cool 180 Waterless Coolant

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

Identified uses Non-toxic IC engine coolant with antifreeze and inhibitor functions.

1.3 Details of the supplier of the Safety Data Sheet

Supplier Evans Cooling Systems UK
Division of Liquitherm Technologies Group Ltd
Europa Way,
Swansea West Business Park,
Fforestfach,
Swansea,
SA5 4AJ

+44 (0) 1792 586800
techsupport@evanscoolants.co.uk

1.4 Emergency telephone number

Emergency telephone number 01792 586800
Opening Hours 08:30 - 17:00

Out of hours emergency information

First aid advice number For emergencies that occur outside of office opening hours that pose a threat to human health, the environment or require immediate first aid advice call:
+44 (0) 1792 572296

Note This number is for emergencies only.

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Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification - Regulation (EC) No. 1272/2008 (CLP)

| | |
|-------------------------------|---|
| Physical and chemical hazards | Not classified as a physical or chemical hazard |
| Human health | Not classified as a health hazard |
| Environment | Not classified as an environmental hazard |

In accordance with Article 9 and Article 12 of Regulation (EC) No. 1272/2008 (CLP), Evans Waterless Coolant has been assessed as a mixture where adequate and reliable scientific information demonstrates the occurrence of synergistic and antagonistic effects that renders the mixture non-toxic as determined by an EPA certified laboratory with an LD50, oral, rat >15,000 mg/kg bw.

2.2 Label elements

EC No.

N/A

Labelling - Regulation (EC) No. 1272/2008 (CLP)

Not classified as hazardous according to CLP Regulation (EC) No. 1272/2008 - no hazard label elements required.

2.3 Other hazards

This product does not meet the PBT/vPvB criteria of REACH, annex XIII.

3 Section 3: Composition/information on ingredients

3.2 Mixtures

| | | |
|----------|---|------------------|
| 1 | Component - Monoethylene glycol (ethane-1, 2-diol) | |
| | Concentration | 70-85% |
| | EC No. | 203-473-3 |
| | CAS No. | 107-21-1 |
| | Reach registration No. | 01-2119456816-28 |

Classification - Regulation (EC) No. 1272/2008 (CLP)

Acute Tox. 4 - H302

STOT RE 2 - H373

The classification listed for monoethylene glycol above is that which is listed, according to Regulation (EC) No. 1272/2008 (CLP) for neat monoethylene glycol. However, the monoethylene glycol present in this mixture is rendered non toxic (as determined by an EPA certified laboratory) upon the addition of Evans' patented DeTox™ additive.

More detailed information on the detoxification of monoethylene glycol can be found under "further classification and composition comments" in Section 16 of this Safety Data Sheet.

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Section 4: First aid procedures

4.1 Description of first aid procedures

| | |
|---------------------|---|
| General Information | When safe to do so remove the victim from the source of exposure giving consideration as to whether this may cause further discomfort to the victim. |
| Inhalation | Move the affected person to fresh air at once. Keep warm in a position comfortable for breathing. If breathing becomes difficult, properly trained personnel may assist the victim by supplying oxygen to ease breathing. Get medical attention if any discomfort continues. |
| Ingestion | Move the affected person to fresh air and keep warm in a position comfortable for breathing. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues. |
| Skin Contact | Remove contaminated clothing immediately and wash skin with soap and water. 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. Get medical attention if any discomfort continues. |

4.2 Most important symptoms and effects, both acute and delayed

| | |
|---------------------|---|
| General Information | The following symptoms are listed in case of exposure to the 100% neat product. |
| Inhalation | Inhalation of vapours may cause mild irritation of the upper respiratory tract. |
| Ingestion | May cause discomfort to the stomach if swallowed. |
| Skin Contact | Prolonged and repeated contact may cause mild irritation of the skin. |
| Eye Contact | Direct eye contact may cause reddening of the eyes. |

4.3 Indication of immediate medical needs or special treatment

No specific recommendations 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 and present a copy of this Safety Data Sheet.

Notes for the doctor

No specific recommendations other than to read all sections of this Safety Data Sheet, especially Section 16.

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Section 5: Firefighting measures

5.1 Extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide (CO₂), dry chemicals, sand and dolomite or water fog.

5.2 Special hazards arising from the substance or mixture

| | |
|------------------------------------|--|
| Specific Hazards | When heated and in the case of a fire, harmful vapours/gases (such as carbon monoxide and carbon dioxide) may be formed. |
| Unusual fire and explosion hazards | Exposure to extreme heat may cause product containers to explode. |

5.3 Advice for firefighting

| | |
|--|--|
| Protective actions during firefighting | Move containers away from fire area if this can be done without risk. Keep people away, isolate the fire and deny unnecessary entry. Use water fog to keep fire-exposed containers cool and disperse vapours. Runoff water should be prevented from entering sewers and watercourses. |
| Specialist protective equipment for firefighters | Wear positive-pressure self-contained breathing apparatus (SCBA) and full protective clothing. |

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Section 6: Procedure for unwanted emissions

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid flames, sparks, heat and smoking.
In the case of inadequate ventilation, use respiratory protection.

Protective Equipment

Wear protective clothing as described in Section 8 of this Safety Data Sheet.

Emergency Procedures

Stop leak/release if possible to do so without risk.
Extinguish all ignition sources if safe to do so.
Warn everybody of potential danger and evacuate if necessary.

6.2 Environmental precautions

Do not discharge into drains, water courses or onto the ground.
Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3 Methods and materials for containment and cleanup

Absorb spillage with inert, damp, non-combustible material, then flush the contaminated area with water.
Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this Safety Data Sheet. Collect and dispose of spillage as indicated in Section 13.

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Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid spilling and contact with the skin and the eyes as well as direct inhalation of sprays and mists.

Provide good ventilation.

Do not eat, drink or smoke in work areas and wash hands after handling this product.

7.2 Conditions for safe storage including any compatibilities

Store in tightly-closed, original containers.

Keep separate from food, feedstuffs, fertilisers and other sensitive material.

Do not store near heat sources or expose to high temperatures.

Keep away from heat, sparks and open flame.

7.3 Specific end use(es)

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

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Section 8: Exposure controls / Personal protection

8.1 Control parameters

| Name | STD | TWA-8 Hrs | STEL-15 Min |
|--|-----|----------------------|-----------------------|
| Monoethylene glycol (ethane-1, 2-diol) | WEL | 52 mg/m ³ | 104 mg/m ³ |

DNEL

Industry, Inhalation - Long term local effects: 35mg/m³

Industry, Dermal - Long term systemic effects: 106mg/m³

Consumer, Inhalation - Long term local effects: 7mg/m³

Consumer, Dermal - Long term systemic effects: 7mg/m³

PNEC

Fresh water: 10 mg/L

Marine water: 1mg/L

STP: 199.5 mg/L

Sediment fresh water: 20.9 mg/kg

Soil: 1.53 mg/kg

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8.2 Exposure controls



Technical procedures

Engineering measures

Methods to prevent or control exposure are preferred. Provide adequate ventilation to minimise the risk of inhalation of sprays and mists.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practices.
Wash hands after handling this product and at the end of each work shift.
Routinely wash work clothing and personal protective equipment to remove possible contaminants.

Respiratory equipment

If ventilation is inadequate, suitable respiratory protection must be worn.

Hand protection

PVC/butyl rubber/neoprene gloves are recommended.

Eye protection

Wear approved chemical goggles or face shield.

Skin Protection

Wear rubber apron or protective clothing in case of contact.

Other Protection

Wear suitable protective clothing/footwear as protection against splashing or contamination.

Thermal Hazards

No specific measures required.

Environmental Exposure Controls

Product not classified as an environmental hazard - no specific environmental exposure controls required.

9**Section 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

| | |
|--|--|
| Appearance | Clear liquid |
| Colour | Yellow |
| Odour | Non-pungent but characteristic aroma |
| Odour Threshold | Not applicable |
| pH | 7.5 - 10.5 depending on inhibitor formulation |
| Melting point / Pour point | -40°C |
| Initial boiling point | >180°C |
| Flash point | >115°C |
| Evaporation Rate | No test data available |
| Flammability | Product is not classified as flammable |
| Flammability / explosion limits | Upper limit: 15% Lower limit: 3% |
| Vapour pressure | 13 Pa @ 25°C |
| Vapour density (air = 1) | 2.2 |
| Relative density of the mixture | 1.04 - 1.15 |
| Solubility | Soluble in water |
| Partition coefficient: n-octanol / water | No test data available |
| Auto-ignition temperature | >400°C |
| Decomposition temperature | No test data available |
| Viscosity | See product data sheet |
| Explosive properties | Not applicable - product is not classified as an explosive |
| Oxidising properties | Not applicable - product is not classified as an oxidising agent |

9.2 Other information

Not determined.

10**Section 10: Stability and reactivity****10.1 Reactivity**

There are no known reactivity hazards associated with this product.

10.2 Chemical stability

Stable at normal ambient temperatures and when used as recommended.

Product is hygroscopic and will absorb water by contact with the moisture in the air.

10.3 Possibility of hazardous reactions

There are no known hazardous reactions associated with this product.

10.4 Conditions to avoid

Avoid temperatures >180°C for prolonged periods of time, flames and sources of ignition.

10.5 Incompatible materials

Strong acids, strong alkalis and strong oxidising agents.

10.6 Hazardous decomposition products

No known hazardous decomposition products. Potentially hazardous products released due to fire are listed in Section 5.2 of this Safety Data Sheet.

11 Section 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

The addition of Hydratech's patented DeTox™ additive to monoethylene glycol results in a mixture that is classified as non-toxic with an LD50, oral, rat >15,000 mg/kg bw.

Skin corrosion/ irritation
Serious eye damage/ irritation
Respiratory/ skin sensitisation
Germ cell mutagenicity
Carcinogenicity
Reproductive toxicity

Skin irritation is not expected when this product is used/handled correctly.
Eye irritation is not expected when this product is used/handled correctly.
Product not classified as a skin/respiratory sensitiser.
Product is not expected to be mutagenic.
Product is not expected to be carcinogenic.
Product is not expected to damage the reproductive system or harm a developing fetus.

Evaluation of CMR properties
STOT-single exposure
STOT-repeated exposure
Aspiration hazard

No test data available.
No test data available.
No test data available.
No test data available.

General information

See Section 4.2 of this Safety Data Sheet.

Inhalation
Ingestion
Skin contact
Eye contact

Inhalation of vapours may cause mild irritation of the upper respiratory tract.
May cause discomfort to the stomach if swallowed.
Prolonged and repeated contact may cause mild irritation of the skin.
Direct eye contact may cause reddening of the eyes.

12 Section 12: Ecological information

Ecotoxicity

The product is not classified as hazardous to the environment.

12.1 Toxicity

LC50, 96 hours, fish:
EC50, 48 hours, daphnia magna:
EC50, 96 hours, aquatic plants:

>100 mg/L - not classified as harmful to fish
>100 mg/L - not classified as harmful to daphnia
>100 mg/L - not classified as harmful to aquatic plants

12.2 Persistence and degradability

This product is readily biodegradable (90% over 10 days).

12.3 Bioaccumulative potential

Will not bio-accumulate.

Partition coefficient - not determined.

12.4 Mobility in soil

Product is mobile in soil as it is water soluble.

12.5 Results of PBT and vPvB assessment

This product does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects

Not determined.

13 Section 13: Advice on disposal

General information

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with Local Waste Disposal Authority.

Disposal methods

Dispose of waste and residues in accordance with local authority and/or local sewage treatment plant requirements.

14 Section 14: Transport information

14.1 UN number

Product not hazardous for transport - no information required.

14.2 UN proper shipping name

Product not hazardous for transport - no information required.

14.3 Transport hazard class(es)

Product not hazardous for transport - no information required.

Transport labels

Product not hazardous for transport - no information required.

14.4 Packing group

Product not hazardous for transport - no information required.

14.5 Environmental hazards

Product not classed as an environmentally hazardous substance or marine pollutant.

14.6 Special precautions for user

Product not hazardous for transport - no information required.

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

Product not hazardous for transport - no information required.

15 Section 15: Regulatory information

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance notes

CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for substances and preparations.

15.2 Chemical safety assessment

No chemical safety assessment for this mixture has been carried out.

16 Section 16: Other information

| | |
|-------------------|------------------------------------|
| Issued by | Evans |
| Revision Date | 30/09/2015 |
| Approved by | Stephen Hickson |
| Revision Comments | Review in line with CLP regulation |

Hazard statements in full

The following hazard statements are the hazard statements 'in full' for neat monoethylene glycol and do not represent the final classifications of this product.

H302 - Harmful if swallowed

H373 - May cause damage to organs - Kidneys - through prolonged or repeated exposure if swallowed

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Further classification and composition comments

Monoethylene glycol is classified as Acute Tox. 4 - H302 according to CLP (EC) No. 1272/2008. Here it should be noted that monoethylene glycol is in itself, not toxic. The toxicity classification for monoethylene glycol arises from the fact that upon its metabolism in the liver by the enzyme Alcohol Dehydrogenase (ADH), toxic carboxylic acids - glycolic acid and oxalic acid - are released and cause metabolic acidosis, cardiovascular dysfunction and ultimately kidney failure.

Evans have developed a method of inhibiting the metabolism of monoethylene glycol in the liver by the addition of our patented DeTox™ additive, thus preventing the release of the toxic metabolites - glycolic and oxalic acid - into the body. A test study by an EPA certified laboratory has determined that by the occurrence of synergistic and antagonistic effects, the addition of the DeTox™ additive to monoethylene glycol detoxifies it, resulting in a mixture with an LD50, oral, rat >15,000 mg/kg bw.

(i) Indication of changes

Safety Data Sheet updated to comply with the new requirements as set out in Regulation (EC) No. 1272/2008 (CLP).

(ii) Abbreviations and acronyms

bw: bodyweight
CAS No: Chemical Abstracts Service number
CLP: Classification Labelling and Packaging Regulation
DNEL: Derived No-Effect Level
EC: European Commission
EC No: European Chemical number: EINECS, ELINCS or NLP
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
LC50: Lethal Concentration, 50%
LD50: Median Lethal Dose
PBT: Persistent, Bioaccumulative & Toxic
PNEC: Predicted No Effect Concentration
REACH: Registration, Evaluation, Authorisation & restrictions of Chemicals
SDS: Safety Data Sheet
vPvB: Very Persistent and Very Bioaccumulative
WEL: Workplace Exposure Limit

(iii) Training advice

Product should only be handled by trained operators.

(iv) Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give advice about the safe handling of the product named in this Safety Data Sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with products or in the case of processing, the information on this Safety Data Sheet is not necessarily valid for the new made-up material.