

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

1.1. Product identifier

Product form : Mixture
Product name : 43940- ANTIFREEZE
Product code : 43940
Product group : Antifreeze

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Antifreeze

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

77 Lubricants
1761 JA - The Netherlands
T +31 (0)78 6527652
technical@77lubricants.nl - www.77lubricants.nl

1.4. Emergency telephone number

Emergency number : +31 (0)78 6527652
Monday to Friday: 09:00 - 16:00 (CET)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302
Specific target organ toxicity — Repeated exposure, Category 2 H373
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

	GHS07	GHS08
Signal word (CLP)	: Warning	
Hazardous ingredients	: Ethylene Glycol	
Hazard statements (CLP)	: H302 - Harmful if swallowed. H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed).	
Precautionary statements (CLP)	: P102 - Keep out of reach of children. P260 - Do not breathe dust, fume, gas, mist, spray, vapours. P264 - Wash hands 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.	
UFI	: 5FPW-63XM-F006-GFVF	

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethylene Glycol	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index-No.) 603-027-00-1 (REACH-no) 01-2119456816-28	≥ 25	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. No specific measures are necessary. If experiencing respiratory symptoms: Get medical advice/attention, Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: No specific measures are necessary. IF ON SKIN: Remove contaminated clothing, Wash skin with mild soap and water, Wash contaminated clothing before reuse. Wash skin with plenty of water.
First-aid measures after eye contact	: No specific measures are necessary. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: After adequate first aid, no further treatment is required unless symptoms reappear. May cause kidney and liver disease, and disorders of the central nervous system.
Symptoms/effects after skin contact	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after eye contact	: After adequate first aid, no further treatment is required unless symptoms reappear.
Symptoms/effects after ingestion	: Not expected to present a significant hazard under anticipated conditions of normal use.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Under fire conditions, highly hazardous fumes will be present.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate every possible source of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and eye/face protection.
Emergency procedures : Ventilate spillage area. Do not breathe dust, fume, gas, mist, spray, vapours.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear suitable protective clothing, gloves and eye/face protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Do not breathe dust, fume, gas, mist, spray, vapours.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.
Storage temperature : 0 – 40 °C
Storage area : Store in a well-ventilated place. Store away from heat.
Special rules on packaging : Store in a closed container. Keep only in original container.

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7.3. Specific end use(s)

Antifreeze.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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EU - Occupational Exposure Limits	
IOELV TWA (mg/m ³)	60 mg/m ³
IOELV STEL (mg/m ³)	125 mg/m ³

Ethylene Glycol (107-21-1)	
EU - Occupational Exposure Limits	
Local name	Ethylene glycol
IOELV TWA (mg/m ³)	52 mg/m ³
IOELV TWA (ppm)	20 ppm
IOELV STEL (mg/m ³)	104 mg/m ³
IOELV STEL (ppm)	40 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
France - Occupational Exposure Limits	
VME (mg/m ³)	125 mg/m ³
Netherlands - Occupational Exposure Limits	
Local name	Ethaan-1,2-diol
Grenswaarde TGG 8H (mg/m ³)	52 mg/m ³ (damp)
Grenswaarde TGG 15MIN (mg/m ³)	104 mg/m ³ (damp)
Remark (MAC)	H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een H-aanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
Regulatory reference	Arbeidsomstandighedenregeling 2020
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	52 mg/m ³ 8 Hrs
WEL STEL (mg/m ³)	104 mg/m ³ 15 Min

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Materials for protective clothing:

Wear suitable protective clothing

Hand protection:

Protective gloves

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Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Nitrile rubber (NBR), Neoprene rubber (HNBR)	5 (> 240 minutes)	0.7	3 (> 0.65)	EN ISO 374
	Polyvinylchloride (PVC)	2 (> 30 minutes)	0.4	3 (> 0.65)	EN ISO 374

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Hygroscopic. Viscous.
Colour	: Blue.
Odour	: slight.
Odour threshold	: No data available
pH	: 8,6
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: -12 °C
Boiling point	: 180 °C @ 760 mm Hg
Flash point	: 122 °C (Pensky-Martens Closed Cup)
Auto-ignition temperature	: 400 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: 0,05 kPa @ 20°C
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1100 kg/m ³ @20°C
Solubility	: soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Ketones. Aldehydes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

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LD50 dermal	3500 mg/kg
ATE CLP (oral)	625 mg/kg bodyweight

Ethylene Glycol (107-21-1)	
LD50 oral (rat)	7712 mg/kg bodyweight
LD50 dermal	3500 mg/kg mouse
LC50 inhalation (rat) (mg/l)	> 2,5 mg/l

Skin corrosion/irritation : Not classified
pH: 8,6
Serious eye damage/irritation : Not classified
pH: 8,6
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Ethylene Glycol (107-21-1)	
NOAEL (chronic, oral, animal/male, 2 years)	1500 mg/kg bodyweight mouse, male

Reproductive toxicity : Not classified

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STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed).
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

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LC50 fish 1	72860 mg/l Pimephales promelas
EC50 Daphnia 1	> 100 mg/l Daphnia magna
EC50 96h algae (1)	> 6500 mg/l Selenastrum capricornutum
NOEC chronic fish	15380 mg/l Pimephales promelas

Ethylene Glycol (107-21-1)	
LC50 fish 1	72860 mg/l Test organisms (species): Pimephales promelas
EC50 Daphnia 1	> 100 mg/l Test organisms (species): Daphnia magna
EC50 96h algae (1)	3536 mg/l Test organisms (species): other:green algae
EC50 96h algae (2)	6500 – 13000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	≥ 1000 mg/l Americamysis bahia (previous name: Mysidopsis bahia) Duration: '23 d'
Threshold limit algae 1	10000 mg/l 168 Hrs
Threshold limit algae 2	2000 mg/l 192 Hrs

12.2. Persistence and degradability

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Persistence and degradability	Readily biodegradable.

Ethylene Glycol (107-21-1)	
Persistence and degradability	Readily biodegradable. easily degradable in the soil.
Biodegradation	90 %

12.3. Bioaccumulative potential

43940- ANTIFREEZE	
Bioaccumulative potential	No data available.

Ethylene Glycol (107-21-1)	
Bioconcentration factor (BCF REACH)	10
Partition coefficient n-octanol/water (Log Kow)	-1,36 @25°C

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12.4. Mobility in soil

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Ecology - soil	No data available.
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Ethylene Glycol (107-21-1)

Surface tension	0,048 N/m @20°C
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
European List of Waste (LoW) code	: 16 01 14* - antifreeze fluids containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

14.3. Transport hazard class(es)

ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not applicable
IATA	
Transport hazard class(es) (IATA)	: Not applicable
ADN	
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable

14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable

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Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances)

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Germany

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

Ministry's list of carcinogens : None of the components are listed

Ministry's list of mutagens : None of the components are listed

NON-exhaustive list of reproductive toxins -

Breastfeeding

NON-exhaustive list of reproductive toxins - Fertility : None of the components are listed

NON-exhaustive list of reproductive toxins -

Evolution

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
	Supersedes	Removed	
	Revision date	Modified	
2.1	Adverse physicochemical, human health and environmental effects	Modified	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Hazard statements (CLP)	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.2	Hazard pictograms (CLP)	Modified	
4.1	First-aid measures general	Modified	
4.1	First-aid measures after skin contact	Modified	
4.1	First-aid measures after ingestion	Modified	
4.1	First-aid measures after eye contact	Modified	
4.1	First-aid measures after inhalation	Modified	
4.2	Symptoms/effects after ingestion	Modified	
4.2	Symptoms/effects	Removed	
5.1	Unsuitable extinguishing media	Removed	
5.1	Suitable extinguishing media	Modified	
5.2	Fire hazard	Added	
5.3	Protection during firefighting	Modified	
6.1	Emergency procedures	Modified	
6.1	General measures	Added	
7.1	Precautions for safe handling	Modified	
7.1	Hygiene measures	Modified	
7.2	Storage conditions	Modified	
7.2	Incompatible products	Removed	
7.2	Incompatible materials	Removed	
9.1	Freezing point	Added	
10.6	Hazardous decomposition products	Modified	

Abbreviations and acronyms:

CAS-No.	Chemical Abstract Service number
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ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.

SDS EU (REACH Annex II)

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