

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes Date 02-Apr-2023

Revision date 07-Aug-2023

Revision Number 1

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

1.1. Product identifier

Product Code(s) 2631, 2632
Safety data sheet number 500003
Product Name Sub Zero Universal Antifreeze
UFI: 94E0-A09M-6009-M0SP

Pure substance/mixture Mixture

Contains ETHANEDIOL

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

Recommended use Antifreeze liquid Antifreeze for vehicles,

1.3. Details of the supplier of the safety data sheet

Supplier

Granville Oil & Chemicals Ltd
29 Goldthorpe Ind. Est.,
Goldthorpe,
Rotherham,
South Yorkshire,
S63 9BL

Veedol Ireland Ltd
77 Camden Street Lower,
Saint Kevin's,
Dublin,
Ireland,
D02 XE80

For further information, please contact

E-mail address lab@granvilleoil.com

Non-Emergency Telephone Number +44 (0)1709 890099

1.4. Emergency telephone number

Emergency Telephone 999

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Acute toxicity - Oral	Category 4 - (H302)
Specific target organ toxicity — repeated exposure	Category 2 - (H373)

2.2. Label elements

Contains ETHANEDIOL


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 dust/fume/gas/mist/vapours/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

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

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P314 - Get medical advice/attention if you feel unwell

P501 - Dispose of contents/ container to an approved waste disposal plant

12 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

12 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

70.0132 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

70.0132 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).

70.0132 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

UFI:

94E0-A09M-6009-M0SP

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

Additional information

This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients
3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
ETHANEDIOL 107-21-1	90 - 100%	203-473-3	-	STOT RE 2 (H373) Acute Tox. 4 (H302)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

Inhalation	Move victim to fresh air. IF exposed or concerned: Get medical advice/attention.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Remove from exposure, lie down. Drink 1 or 2 glasses of water. Get medical attention if symptoms occur.

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

Ingestion	Harmful if swallowed
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	CO ₂ , dry chemical, dry sand, alcohol-resistant foam.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Carbon oxides.
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5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Avoid contact with skin, eyes and inhalation of vapours. Ensure adequate ventilation.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Local authorities should be advised if significant spillages cannot be contained. Prevent
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entry into waterways, sewers, basements or confined areas.

6.3. Methods and material for containment and cleaning up

Methods for containment	Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Methods for cleaning up	Flush area with flooding quantities of water. Collect spillage.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Avoid contact with skin and eyes. Ensure adequate ventilation.
General hygiene considerations	Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed in a dry and well-ventilated place.
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7.3. Specific end use(s)

Specific use(s)
See section 1 for more information.

Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	United Kingdom
ETHANEDIOL 107-21-1	TWA: 10 mg/m ³ TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ STEL: 30 mg/m ³ Sk*

Biological occupational exposure limits	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
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Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
ETHANEDIOL 107-21-1		106 mg/kg/day [6]	35 mg/m ³ [7]

- [4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
ETHANEDIOL 107-21-1		53 mg/kg/day [6]	7 mg/m ³ [6]

- [4] Systemic health effects.
[5] Local health effects.
[6] Long term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
ETHANEDIOL 107-21-1	10 mg/l	10 mg/L	1 mg/l	10 mg/L	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
ETHANEDIOL 107-21-1	37 mg/kg	3.7 mg/kg	199.5 mg/L	1.53 mg/kg	199.5 mg/l

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	Light (or pale), Straw
Odour	No information available.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No information available
Initial boiling point and boiling range		No information available
Flammability		No information available
Flammability Limit in Air		No information available
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
pH	9.7	
pH (as aqueous solution)		No information available
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Water solubility		No information available
Solubility(ies)		No information available
Partition coefficient		No information available
Vapour pressure		No information available
Relative density	1.097	
Bulk density		
No information available		Relative vapour density
No information available		Particle characteristics
		Particle Size
		Particle Size
		Distribution

Explosive properties	No information available
Oxidising properties	No information available

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
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10.4. Conditions to avoid

Conditions to avoid Excessive heat.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation.
Eye contact	May cause irritation.
Skin contact	Causes mild skin irritation.
Ingestion	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	758.40 mg/kg
ATEmix (dermal)	16,079.10 mg/kg

12 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
12 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
70.0132 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
70.0132 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).
70.0132 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
ETHANEDIOL	= 4700 mg/kg (Rat)	= 10600 mg/kg (Rat)	> 2.5 mg/L (Rat) 6 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure if swallowed. H373 - May cause damage to the following organs through prolonged or repeated exposure if swallowed: kidneys [oral].
Aspiration hazard	No information available.
Other adverse effects	No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	Not considered to be harmful to aquatic life.
Unknown aquatic toxicity	Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
ETHANEDIOL	EC50: 6500 - 13000mg/L (96h, <i>Pseudokirchneriella subcapitata</i>)	LC50: =41000mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 14 - 18mL/L (96h, <i>Oncorhynchus mykiss</i>) LC50: =27540mg/L (96h, <i>Lepomis macrochirus</i>) LC50: =40761mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 40000 - 60000mg/L (96h, <i>Pimephales promelas</i>) LC50: =16000mg/L (96h, <i>Poecilia reticulata</i>)	-	EC50: =46300mg/L (48h, <i>Daphnia magna</i>)

12.2. Persistence and degradability

Persistence and degradability	No information available.
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12.3. Bioaccumulative potential

Bioaccumulation	There is no data for this product.
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Component Information

Chemical name	Partition coefficient
ETHANEDIOL	-1.36

12.4. Mobility in soil

Mobility in soil Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
ETHANEDIOL	The substance is not PBT / vPvB PBT assessment does not apply

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations
13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information
IATA

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	

Special Provisions

None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (UK REACH - Annex XIV). This product does not contain substances subject to restriction (UK REACH - Annex XVII).

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)
The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H225 - Highly flammable liquid and vapour
 H302 - Harmful if swallowed
 H318 - Causes serious eye damage
 H336 - May cause drowsiness or dizziness

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note ***Indicates updated data since last publication

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AELG(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet