

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form	: Mixture
Trade name	: VatOil Antifreeze LL 15
UFI	: X4G0-N0WF-500Y-3WVA
Product code	: VC.10.06
Product group	: Trade product

**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	: Industrial use, Professional use, Consumer use
Use of the substance/mixture	: Antifreeze
Function or use category	: Anti-freezing agents

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

VatOil  
Dollegoorweg, 15  
NL- 7602 EC Almelo  
Netherlands  
T 0031 (0)546 81 81 65  
[vib@vatoil.com](mailto:vib@vatoil.com)

**1.4. Emergency telephone number**

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	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX Llandough	0344 892 0111	Only for healthcare professionals

**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
Reproductive toxicity, Category 2	H361
Specific target organ toxicity – Repeated exposure, Category 2	H373
Full text of H- and EUH-statements: see section 16	

**Adverse physicochemical, human health and environmental effects**

Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Harmful if swallowed.

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### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Contains

: sodium 2-ethylhexanoate, 1,2-ethanediol

Hazard statements (CLP)

: H302 - Harmful if swallowed.

H361 - Suspected of damaging fertility or the unborn child.

H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed).

Precautionary statements (CLP)

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

P102 - Keep out of reach of children.

P260 - Do not breathe vapours, mist.

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

P280 - Wear protective gloves, eye protection.

P308+P313 - IF exposed or concerned: Get medical advice/attention.

P330 - Rinse mouth.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## 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]
1,2-ethanediol substance with national workplace exposure limit(s) (GB, IE); substance with a Community workplace exposure limit	CAS-No.: 107-21-1 EC-No.: 203-473-3 EC Index-No.: 603-027-00-1 REACH-no: 01-2119456816-28	$\geq 80$	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
sodium 2-ethylhexanoate	CAS-No.: 19766-89-3 EC-No.: 243-283-8 REACH-no: 01-2119972937-17, 01-2119979083-31	1 – 5	Repr. 2, H361

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general

: Call a poison center or a doctor if you feel unwell.

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First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth. 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	: Inhalation may affect the nervous system causing headache, possibly dizziness, nausea, weakness, loss of coordination and unconsciousness.
Symptoms/effects after ingestion	: Ingestion may cause nausea, vomiting and diarrhea.

### 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.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustible liquid.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

### 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.
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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray.
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#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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### 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. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray.
- 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 : Store locked up. Store in a well-ventilated place. Keep cool.
- Storage temperature : < 40 °C

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

#### 1,2-ethanediol (107-21-1)

##### EU - Indicative Occupational Exposure Limit (IOEL)

Local name	Ethylene glycol
IOEL TWA	52 mg/m <sup>3</sup>
IOEL TWA [ppm]	20 ppm
IOEL STEL	104 mg/m <sup>3</sup>
IOEL STEL [ppm]	40 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

##### Ireland - Occupational Exposure Limits

Local name	Ethane-1,2-diol [Ethylene glycol]
OEL TWA [1]	10 mg/m <sup>3</sup> particulate 52 mg/m <sup>3</sup> vapour
OEL TWA [2]	20 ppm vapour
OEL STEL	104 mg/m <sup>3</sup> vapour
OEL STEL [ppm]	40 ppm vapour
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2021

##### United Kingdom - Occupational Exposure Limits

Local name	Ethane-1,2-diol
WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup> particulate 52 mg/m <sup>3</sup> vapour
WEL TWA (OEL TWA) [2]	20 ppm vapour

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1,2-ethanediol (107-21-1)	
WEL STEL (OEL STEL)	104 mg/m <sup>3</sup> vapour
WEL STEL (OEL STEL) [ppm]	40 ppm vapour
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

### 8.1.2. Recommended monitoring procedures

No additional information available

### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	≥0.35		EN ISO 374

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

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### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### 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
Colour	: orange.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -18 °C
Boiling point	: > 175 °C
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosion limit	: 3,2 vol %
Upper explosion limit	: 53 vol %
Flash point	: 122 °C - ASTM D93 (PM)
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 8,7 (20°C)
Viscosity, kinematic	: Not available
Solubility	: Water: Miscible in all proportions
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 10 Pa (20°C)
Vapour pressure at 50°C	: Not available
Density	: 1,11 g/cm <sup>3</sup> (15 °C) - ASTM D4052
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

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. Reacts violently with (strong) oxidizers.

### 10.4. Conditions to avoid

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

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### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

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ATE CLP (oral) 510,204 mg/kg bodyweight

#### sodium 2-ethylhexanoate (19766-89-3)

LD50 oral rat 2043 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1445 - 2890

LD50 dermal rat > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

#### 1,2-ethanediol (107-21-1)

LD50 oral rat 7712 mg/kg bodyweight

LD50 oral There is a marked difference in acute oral toxicity between rodents and man, man being more susceptible than rodents. The estimated fatal dose for man is 30-100 milliliters. This material has also been shown to be toxic and potentially lethal by ingestion to cats and dogs.

LD50 dermal 3500 mg/kg bodyweight mouse

LC50 Inhalation - Rat > 2,5 mg/l

Skin corrosion/irritation : Not classified  
pH: 8,7 (20°C)  
Serious eye damage/irritation : Not classified  
pH: 8,7 (20°C)  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

#### 1,2-ethanediol (107-21-1)

NOAEL (chronic, oral, animal/male, 2 years) 1500 mg/kg bodyweight Animal: mouse, Animal sex: male, Remarks on results: other:Effect type: carcinogenicity (migrated information)

Reproductive toxicity : Suspected of damaging fertility or the unborn child.  
STOT-single exposure : Not classified  
STOT-repeated exposure : May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed).

#### sodium 2-ethylhexanoate (19766-89-3)

NOAEL (oral, rat, 90 days) ≈ 300 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 795.2600 (Subchronic Oral Toxicity Test)

#### 1,2-ethanediol (107-21-1)

STOT-repeated exposure May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed).

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Aspiration hazard : Not classified

### 1,2-ethanediol (107-21-1)

Viscosity, kinematic 14,505 mm<sup>2</sup>/s

### 11.2. Information on other hazards

No additional information available

## 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

### sodium 2-ethylhexanoate (19766-89-3)

LC50 - Fish [1] > 100 mg/l Test organisms (species): *Oryzias latipes*

EC50 - Crustacea [1] 910 mg/l Test organisms (species): *Daphnia magna*

EC50 72h - Algae [1] 49,3 mg/l Test organisms (species): *Desmodesmus subspicatus* (previous name: *Scenedesmus subspicatus*)

LOEC (chronic) 63 mg/l Test organisms (species): *Daphnia magna* Duration: '21 d'

NOEC (chronic) 25 mg/l Test organisms (species): *Daphnia magna* Duration: '21 d'

### 1,2-ethanediol (107-21-1)

LC50 - Fish [1] 72860 mg/l Test organisms (species): *Pimephales promelas*

EC50 - Crustacea [1] > 100 mg/l Test organisms (species): *Daphnia magna*

EC50 96h - Algae [1] 3536 mg/l Test organisms (species): other: grenn 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 Test organisms (species): *Americamysis bahia* (previous name: *Mysidopsis bahia*) Duration: '23 d'

### 12.2. Persistence and degradability

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Persistence and degradability Biodegradable.

### 1,2-ethanediol (107-21-1)

Biodegradation 90 % > 10d (OECD 301A method)

### 12.3. Bioaccumulative potential

### 1,2-ethanediol (107-21-1)

Partition coefficient n-octanol/water (Log Kow) -1,36



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### 12.4. Mobility in soil

#### 1,2-ethanediol (107-21-1)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1
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### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. 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 / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

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### Inland waterway transport

Not applicable

### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Biocide Regulation (528/2012)

Child-resistant fastening : Not applicable

Tactile warning : Applicable

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

No additional information available

### 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
1.2	Use of the substance/mixture	Added	
1.2	Function or use category	Added	
13.1	H code	Added	

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Indication of changes			
Section	Changed item	Change	Comments
15.1	REACH Annex XVII	Added	

Abbreviations and acronyms:	
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
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
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
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

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Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.