



# Eni Antifreeze Bike S

## Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878  
Revision date: 08/11/2021 Supersedes: 06/09/2019 Version: 4.0

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

#### 1.1. Product identifier

Product form	: Mixture
Trade name	: Eni Antifreeze Bike S
UFI	: 10G4-C0XJ-J00E-MSXY
Product code	: 1619
Type of product	: Anti-Freeze and De-icing products
Formula	: 0811-2021
Product group	: Trade product

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

##### 1.2.1. Relevant identified uses

Main use category	: Professional use, Consumer use
Industrial/Professional use spec	: Wide dispersive use
Use of the substance/mixture	: Antifreeze fluids
Function or use category	: Anti-freezing agents

##### 1.2.2. Uses advised against

Recommended use are listed above; other uses are not recommended unless an assessment has provided that risks are controlled.

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

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Competent person responsible for the safety data sheet (Reg. EC nr. 1907/2006): [SDSInfo@eni.com](mailto:SDSInfo@eni.com)

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#### 1.4. Emergency telephone number

Emergency number	: CNIT +39 0382 24444 (24h) (IT + EN)
	Poison centre (UK): National Poisons Information Service Edinburgh (24h) (+44) 844 892 0111 0870 600 6266 (UK only) (Source: UN-WHO)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / 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

Harmful if swallowed. May cause damage to organs (kidneys) through prolonged or repeated exposure (oral). For specific information about the toxicological/ecotoxicological properties and classification of this product, see Sect. 11 and/or Sect. 12.

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### 2.2. Label elements

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

Hazard pictograms (CLP)



- CLP Signal word : Warning
- Contains : Ethandiol
- Hazard statements (CLP) : H302 - Harmful if swallowed.  
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
- Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.  
P102 - Keep out of reach of children.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P301+P312 - IF SWALLOWED: Call a POISON CENTER, a doctor if you feel unwell.  
P330 - Rinse mouth.  
P501 - Dispose of contents and container to according to national or local regulations.

### 2.3. Other hazards (not relevant for classification)

- Other hazards not contributing to the classification : Any substance, in case of accidents involving pressurized circuits and the like, may be accidentally injected under the skin, even without external damage. In such a case, the victim should be brought to an hospital as soon as possible, to get specialized medical treatment. Do not wait for symptoms to develop.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

- Other information : 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.

#### Component

ethanediol; ethylene glycol (107-21-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-ethylhexanoic acid (149-57-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### Component

ethanediol; ethylene glycol(107-21-1)	The substance is not 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
2-ethylhexanoic acid(149-57-5)	The substance is not 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

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Notes : Composition/ Information on ingredients:  
Ethylene glycol.  
Rust inhibitor  
Additives  
Water

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]
Ethandiol	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index-No.) 603-027-00-1 (REACH-no) 01-2119456816-28	≥ 30 ≤ 60	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT RE 2, H373
2-ethylhexanoic acid	(CAS-No.) 149-57-5 (EC-No.) 205-743-6 (EC Index-No.) 607-230-00-6 (REACH-no) 01-2119488942-23	≥ 1 < 1,5	Repr. 2, H361d

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 : In case of doubt or persistent symptoms, consult always a physician.

First-aid measures after inhalation : In case of disturbances owing to inhalation of vapours or mists, remove the victim from exposure; keep at rest; if necessary, seek medical attention. If casualty is unconscious and not breathing: ensure that there is no obstruction to breathing and give artificial respiration by trained personnel. Place in the recovery position.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do so. Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.

First-aid measures after ingestion : Rinse mouth thoroughly with water. Do not induce vomiting. If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink. In case of spontaneous vomiting, keep head low, to avoid the risk of aspiration into the lungs. Get medical advice/attention.

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

Symptoms / injuries (general indications) : There are potential chronic health effects to consider.

Symptoms/effects after inhalation : None under normal conditions at ambient temperatures.

Symptoms/effects after skin contact : Prolonged or repeated skin contact may cause a slight transient irritation.

Symptoms/effects after eye contact : None to be reported.

Symptoms/effects after ingestion : Harmful if swallowed. Ingestion of significant quantities (see sect. 11) may cause kidney damages, coma and death. The effects may be delayed.

Symptoms/effects upon intravenous administration : No information available.

Chronic symptoms : May cause damage to kidneys through prolonged or repeated exposure if swallowed.

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

Treat symptomatically. Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, or water spray or regular foam. Other extinguishing gases (according to regulations).

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Unsuitable extinguishing media : None specific.

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

Fire hazard : Not flammable. Product with a very low risk of fire. It can create flammable mixtures or burn only when the water content has evaporated.

Explosion hazard : Heat may build pressure in tank and containers, rupturing closed vessels, spreading fire and increasing risk of burns and injuries.

Hazardous decomposition products in case of fire : Incomplete combustion will generate poisonous carbon monoxide, carbon dioxide and other toxic gases. Oxygenated compounds (aldehydes, etc.).

### 5.3. Advice for firefighters

Firefighting instructions : Shut off source of product, if possible. Move undamaged containers from immediate hazard area if it can be done safely. Spilled product which is not burning should be covered with sand or foam. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area.

Special protective equipment for firefighters : Personal protection equipment for firefighters (see also sect. 8). In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. EN 443. EN 469. EN 659.

Other information : In case of fire, do not discharge residual product, waste materials and runoff water: collect separately and use a proper treatment.

## SECTION 6: Accidental release measures

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

General measures : Stop or contain leak at the source, if safe to do so. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). Avoid direct contact with released material.

#### 6.1.1. For non-emergency personnel

Protective equipment : See Section 8.

Emergency procedures : Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.

#### 6.1.2. For emergency responders

Protective equipment : Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. if necessary heat resistant and insulated. Work gloves (preferably gauntlets) providing adequate chemical resistance. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Work helmet. Antistatic non-skid safety shoes or boots. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: a half or full-face respirator with filter(s) for organic vapours (AX), or a Self-contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

Emergency procedures : Notify local authorities according to relevant regulations.

### 6.2. Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. In case of contamination of environment compartments (soil, subsoil, surface or underground waters), remove contaminated soil when possible, and in any case treat all involved compartments in accordance with local regulations.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid in suitable containers. Clean contaminated area. Dispose of according to local regulations. If in water: This product is soluble in water, and usually no special measures are feasible. If possible, collect spilled product with mechanical means. Notify official Authorities when required. Dispose of in accordance with relevant local regulations. Do not use solvents or dispersants, unless specifically advised by an expert, and, if required, approved by local authorities.

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Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Transfer recovered product and other materials to suitable tanks or containers and store/dispose according to relevant regulations. This material and its container must be disposed of in a safe way, and according to local legislation.
Other information	: Local regulations may also prescribe or limit actions to be taken. Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary.

### 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	: Provide good ventilation in process area to prevent formation of vapour. Do not breathe fume/ mist/ vapours. Use personal protective equipment as required. Store in dry, well-ventilated area.
Hygiene measures	: Avoid contact with skin. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not eat and do not drink during use. Do not clean hands with dirty or oil-soaked rags. Do not re-use clothes, if they are still contaminated. Keep away from food and beverages. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Separate working clothes from town clothes. Launder separately.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in dry, well ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. If the product is supplied in containers: Keep only in the original container or in a suitable container for this kind of product. Keep containers tightly closed and properly labelled.
Incompatible products	: Strong oxidizing agents. Strong acids. Alkali metals.
Incompatible materials	: None in normal conditions.
Storage area	: Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.
Packages and containers:	: Store away from direct sunlight or other heat sources. Do not re-use empty containers.
Packaging materials	: Keep only in the original container. Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer, according to the specific use conditions.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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

##### Ethandiol (107-21-1)

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

IOEL TWA	52 mg/m <sup>3</sup> Vapours
IOELV TWA (ppm)	20 ppm

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Ethandiol (107-21-1)	
IOELV STEL (mg/m³)	104 mg/m³ Vapours
IOELV STEL (ppm)	40 ppm
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	26 mg/m³ Vapours
MAK [ppm]	10 ppm
MAK (OEL STEL)	52 mg/m³ Vapours
MAK Short time value [ppm]	20 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	52 mg/m³ (Inhalable aerosol)
Short time value [mg/m³]	104 mg/m³ (Inhalable aerosol)
Denmark - Occupational Exposure Limits	
OEL TWA [1]	26 mg/m³ (Inhalable aerosol)
OEL TWA [2]	10 ppm
OEL STEL	52 mg/m³ (Inhalable aerosol)
Grænseværdi (kortvarig) (ppm)	20 ppm
France - Occupational Exposure Limits	
VME (OEL TWA)	52 mg/m³ Vapours
VME [ppm]	20 ppm
VLE [mg/m³]	104 mg/m³ Vapours
VLE [ppm]	40 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	26 mg/m³ (Inhalable aerosol) (15 min)
AGW (OEL TWA) [2]	10 ppm
Limitation of exposure peaks (mg/m³)	52 mg/m³ (Inhalable aerosol) (15 min)
Limitation of exposure peaks (ppm)	20 ppm
Ireland - Occupational Exposure Limits	
OEL TWA [1]	52 mg/m³ Vapours
OEL TWA [2]	20 ppm
OEL (15 min ref) (mg/m³)	104 mg/m³ Vapours
OEL (15 min ref) (ppm)	40 ppm
Italy - Occupational Exposure Limits	
OEL TWA (mg/m³)	52 mg/m³ Skin
OEL TWA (ppm)	20 ppm Skin
OEL STEL (mg/m³)	104 mg/m³ Skin
OEL STEL (ppm)	40 ppm Skin
Netherlands - Occupational Exposure Limits	
MAC TGG 8h (mg/m³)	52 mg/m³ Vapours
MAC TGG 15 min (mg/m³)	104 mg/m³ Vapours
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	15 mg/m³ (Inhalable aerosol)

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### Ethandiol (107-21-1)

#### Spain - Occupational Exposure Limits

VLA-ED (OEL TWA) [1]	52 mg/m <sup>3</sup> (Inhalable aerosol)
VLA-EC (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (Inhalable aerosol)
Notes	skin

#### Sweden - Occupational Exposure Limits

NGV (OEL TWA)	25 mg/m <sup>3</sup> Vapours
Nivågränsvärde (NVG) (ppm)	10 ppm
KTV (OEL STEL)	50 mg/m <sup>3</sup> Vapours
KTV (OEL STEL) [ppm]	20 ppm

#### United Kingdom - Occupational Exposure Limits

WEL TWA (OEL TWA) [1]	52 mg/m <sup>3</sup> (Inhalable aerosol)
WEL TWA (OEL TWA) [2]	20 ppm
WEL STEL (OEL STEL)	104 mg/m <sup>3</sup> (Inhalable aerosol)
WEL STEL (OEL STEL) [ppm]	40 ppm

#### Switzerland - Occupational Exposure Limits

MAK (OEL TWA) [1]	26 mg/m <sup>3</sup> (Inhalable aerosol)
MAK (OEL TWA) [2]	10 ppm (Inhalable aerosol)
VLE [mg/m <sup>3</sup> ]	52 mg/m <sup>3</sup> (Inhalable aerosol)
VLE [ppm]	20 ppm (Inhalable aerosol)

#### USA - ACGIH - Occupational Exposure Limits

ACGIH TLV®-STEL Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
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### 2-ethylhexanoic acid (149-57-5)

#### Belgium - Occupational Exposure Limits

OEL TWA	5 mg/m <sup>3</sup>
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#### Ireland - Occupational Exposure Limits

OEL TWA [1]	4 mg/m <sup>3</sup>
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#### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	5 mg/m <sup>3</sup>
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#### 8.1.2. Recommended monitoring procedures

##### Monitoring methods

Monitoring methods	Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts. Refer to relevant legislation and in any case to the good practice of industrial hygiene.
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#### 8.1.3. Air contaminants formed

Applicable OEL and BLV for air contaminants : None known

#### 8.1.4. DNEL and PNEC

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#### DNEL/DMEL (additional information)

Additional information	Not applicable
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### PNEC (additional information)

Additional information	Not applicable
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### Ethandiol (107-21-1)

#### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	106 mg/kg bodyweight/day
Long-term - local effects, inhalation	35 mg/m <sup>3</sup>

#### DNEL/DMEL (General population)

Acute - local effects, inhalation	7 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	53 mg/kg bodyweight/day

#### PNEC (Water)

PNEC aqua (freshwater)	10 mg/l
PNEC aqua (marine water)	1 mg/l
PNEC aqua (intermittent, freshwater)	10 mg/l

#### PNEC (Sediment)

PNEC sediment (freshwater)	37 mg/kg dwt
PNEC sediment (marine water)	3,7 mg/kg dwt

#### PNEC (Soil)

PNEC soil	1,53 mg/kg dwt
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#### PNEC (STP)

PNEC sewage treatment plant	199,5 mg/l
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### 2-ethylhexanoic acid (149-57-5)

#### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14 mg/m <sup>3</sup>

#### DNEL/DMEL (General population)

Long-term - systemic effects, oral	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3,5 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day

#### PNEC (Water)

PNEC aqua (freshwater)	398 µg/L
PNEC aqua (marine water)	39,8 µg/l
PNEC aqua (intermittent, freshwater)	1 mg/l

#### PNEC (Sediment)

PNEC sediment (freshwater)	4,74 mg/kg dwt
PNEC sediment (marine water)	474 µg/kg dw

#### PNEC (Soil)

PNEC soil	712 µg/kg dw
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#### PNEC (STP)

PNEC sewage treatment plant	71,7 mg/l
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Note : The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

### 8.1.5. Control banding

Control banding : None known

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station. Minimize exposure to mists/vapours/aerosol.

### 8.2.2. Personal protection equipment

#### Personal protective equipment (for industrial or professional use):

Protective clothing. Safety shoes or boots.

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



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Not required for normal conditions of use

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Protective apron

##### Hand protection:

Hand protection is not required. In case of repeated or prolonged contact wear gloves. Adequate materials: nitrile (NBR), with a protection index  $\geq 5$  (permeation time  $\geq 240$  mins). Personal hygiene is a key element for an effective hand care. Gloves must be worn only with clean hands. After wearing gloves, hands must be carefully washed and dried.

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

Not necessary with sufficient ventilation. Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: if the product is handled without adequate containment: use full or half-face masks with adequate filter for mists and organic vapours. (EN 136/140/145). Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145). Recommended: Filter AX (brown).

#### 8.2.2.4. Thermal hazards

##### Thermal hazard protection:

None in normal use conditions.

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### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Storage areas/installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Do not discharge the product into the environment. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

#### Consumer exposure controls:

Ensure adequate ventilation. Avoid excessive or improper use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: light red.
Appearance	: Liquid, bright & clear.
Odour	: Glycol.
Odour threshold	: There are no data available on the preparation/mixture itself.
Melting point	: Not applicable
Freezing point	: -40 °C (ASTM D 1177)
Softening point	: Lack of data (on mixture / components of the mixture) - Data not available
Boiling point	: 110 °C (ASTM D 1120)
Flammability	: Not applicable
Explosive properties	: None (according to composition).
Oxidising properties	: None (according to composition).
Explosive limits	: Lack of data (on mixture / components of the mixture) - Data not available
Lower explosive limit (LEL)	: Lack of data (on mixture / components of the mixture) - Data not available
Upper explosive limit (UEL)	: Lack of data (on mixture / components of the mixture) - Data not available
Flash point	: Lack of data (on mixture / components of the mixture) - Data not available
Auto-ignition temperature	: Lack of data (on mixture / components of the mixture) - Data not available
Decomposition temperature	: Lack of data (on mixture / components of the mixture) - Data not available
pH	: 7 – 9
Viscosity, kinematic	: Lack of data (on mixture / components of the mixture) - Data not available
Viscosity, dynamic	: Lack of data (on mixture / components of the mixture) - Data not available
Solubility	: Water: Complete.
Log Kow	: Not available
Vapour pressure	: < 0,1 mPa (20°C)
Vapour pressure at 50 °C	: Lack of data (on mixture / components of the mixture) - Data not available
Critical pressure	: Lack of data (on mixture / components of the mixture) - Data not available
Density	: 1,06 – 1,08 kg/l (ASTM D 1122)
Relative density	: Lack of data (on mixture / components of the mixture) - Data not available
Relative vapour density at 20 °C	: Lack of data (on mixture / components of the mixture) - Data not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: 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

Relative evaporation rate (butylacetate=1)	: Lack of data (on mixture / components of the mixture) - Data not available
Bulk density	: 1,05 – 1,09 (20°C) (ASTM D 4052)

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

This mixture does not offer any further hazard for reactivity, except what is reported in the following paragraphs.

#### 10.2. Chemical stability

Stable product, according to its intrinsic properties (in normal conditions of storage and handling).

#### 10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling).

#### 10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

#### 10.5. Incompatible materials

Strong oxidants, strong acids, alkali metals.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Oxygenated compounds (aldehydes, etc.), Carbon dioxide, Carbon monoxide.

### 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 (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition) The toxic (fatal) dose for pure ethylene glycol has been estimated 1.4 ml/kg wt (about 100 ml for an adult person). The effects may be delayed.

#### Eni Antifreeze Bike S

ATE (oral)	833,333 mg/kg bodyweight
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#### Ethandiol (107-21-1)

LD50 oral rat	7712 mg/kg bodyweight
LD50 dermal	> 3500 mg/kg (mouse)
LC50 Inhalation - Rat	> 2,5 mg/l (6h)

#### 2-ethylhexanoic acid (149-57-5)

LD50 oral rat	3640 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 – 9
Additional information	: (according to composition) Prolonged and repeated skin contact may cause reddening, irritation and dermatitis.
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 – 9
Additional information	: (according to composition)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)

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Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)

### Ethandiol (107-21-1)

NOAEL (chronic, oral, animal/male, 2 years)	1500 mg/kg bodyweight Mouse
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Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition) This product contains a substance (2-ethylhexanoic acid, sodium salt) classified as Repr. 2, H361 (CLP) according to the criteria of EU Suspected of damaging fertility. The actual relevance of these effects in man is not certain.

STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)

STOT-repeated exposure	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Additional information	: (according to composition) There are potential chronic health effects to consider The ethylene glycol present in this formulation may cause intoxication, central nervous system depression (incoordination, dizziness), respiratory failure, liver and kidney damage.

### Ethandiol (107-21-1)

NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day 12 months.
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

### 2-ethylhexanoic acid (149-57-5)

NOAEL (oral, rat, 90 days)	300 mg/kg bodyweight/day
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Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: (according to composition)

### Eni Antifreeze Bike S

Viscosity, kinematic	Lack of data (on mixture / components of the mixture) - Data not available
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## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: None known, 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
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### 11.2.2 Other information

Potential adverse human health effects and symptoms	: Harmful if swallowed, Prolonged or repeated skin contact may cause a slight transient irritation, May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed), Avoid all eye and skin contact and do not breathe vapour and mist
Other information	: None

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### 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. An uncontrolled release to the environment may nevertheless produce a contamination of different environmental compartments (soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment.
Ecology - water	: This product is soluble in water.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

#### ethanediol; ethylene glycol (107-21-1)

LC50 fish 1	15380 mg/l (LC10 - 96h)
LC50 fish 2	72860 mg/l (Pimephales promelas)
EC50 Daphnia 1	8590 mg/l (EC10 - 48h)
EC50 Daphnia 2	100 mg/l
EC50 96h - Algae [1]	3536 – 13000 mg/l
ErC50 (algae)	≥ 100 mg/l (EC10)
NOEC (chronic)	15380 – 32000 mg/l

#### 2-ethylhexanoic acid (149-57-5)

LC50 fish 1	180 mg/l (Oryzias latipes)
EC50 Daphnia 1	85,4 mg/l
EC50 72h - Algae [1]	49,3 mg/l (Desmodesmus subspicatus)
NOEC (chronic)	25 mg/l (21d)

#### 12.2. Persistence and degradability

##### Eni Antifreeze Bike S

Persistence and degradability	The most significant constituents of the product should be considered as "readily biodegradable".
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#### ethanediol; ethylene glycol (107-21-1)

Persistence and degradability	Readily biodegradable.
Biochemical oxygen demand (BOD)	0,36 – 0,4 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1,21 g O <sub>2</sub> /g substance
ThOD	1,26 g O <sub>2</sub> /g substance

#### 2-ethylhexanoic acid (149-57-5)

Persistence and degradability	Readily biodegradable.
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#### 12.3. Bioaccumulative potential

##### Eni Antifreeze Bike S

Bioaccumulative potential	Not established.
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### ethanediol; ethylene glycol (107-21-1)

Log Pow	-1,36
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### 2-ethylhexanoic acid (149-57-5)

Log Pow	2,7
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### 12.4. Mobility in soil

#### Eni Antifreeze Bike S

Ecology - soil	No data available.
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### 12.5. Results of PBT and vPvB assessment

#### Eni Antifreeze Bike S

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Results of PBT-vPvB assessment	The components in this formulation do not meet the criteria for classification as PBT or vPvB. The product should be considered as "Not persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
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### Component

ethanediol; ethylene glycol (107-21-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-ethylhexanoic acid (149-57-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties	: Endocrine disrupting properties (Article 57(f) — environment): None known, 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
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### 12.7. Other adverse effects

Other adverse effects	: None
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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.
Sewage disposal recommendations	: Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Dispose of in a safe manner in accordance with local/national regulations.
Product/Packaging disposal recommendations	: European Waste Catalogue code(s) (Decision 2001/118/CE): 16 01 14* (antifreeze fluids containing dangerous substances). This EWC code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right EWC code, considering the actual use of the product, alterations and contaminations.
Additional information	: Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.
Ecology - waste materials	: The product as it is does not contain halogenated substances.
EURAL code (EWC)	: 16 01 14* - antifreeze fluids containing dangerous substances

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### 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 regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
None.				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

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

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
3(b)	Eni Antifreeze Bike S ; Ethandiol ; 2-ethylhexanoic acid	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

No ingredients are included in the REACH Candidate list (> 0,1 % m/m).

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

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Other information, restriction and prohibition regulations	: 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). (et sequens). 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (et sequens). Directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, 90/679/CEE, 93/88/CEE, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE, 99/92/CE, 2001/45/CE, 2003/10/CE, 2003/18/CE (Health and safety on the workplace). Directive 2012/18/CE (Control of major-accident hazards involving dangerous substances). Directive 2004/42/CE (Limitation of emissions of Volatile Organic Compounds). Directive 98/24/EC (protection of the health and safety of workers from the risks related to chemical agents at work). Directive 92/85/CE (measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding). Substances Depleting the Ozone layer (1005/2009) - Annex I Substances (ODP). POP (2019/1021) - Persistent Organic Pollutants. Regulation EU (649/2012) - Export and Import of hazardous chemicals (PIC). Commission Delegated Regulation (EU) 2017/2100. Commission Regulation (EU) 2018/605.
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### 15.1.2. National regulations

National adoption of EU Directives concerning health and safety on the workplace.

Relevant national laws on protection of the health of pregnant workers (National adoption of Dir. 92/85/EEC).

National adoption of EU Directives concerning control of major-accident hazards involving dangerous substances (2012/18/CE).

Relevant national laws on prevention of water pollution.

#### Finland

Finnish National Regulations : Occupational Safety and Health Act No. 738/2002.

#### France

##### Maladies professionnelles (F)

Code	Description
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamide; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

#### Germany

Employment restrictions	: Employment prohibitions or restrictions on the protection of young people at work according to § 22 JArbSchG in the case of formation of hazardous substances have to be observed.
Water hazard class (WGK) (D)	: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)
WGK remark	: Classification is carried out on the basis of the Ordinance on facilities for handling substances that are hazardous to water (Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV)) of 18 April 2017 (BGBl 2017, Teil I, Nr. 22, Seite 905).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
National Rules and Recommendations	: TRGS 400: Hazard assessment for activities involving Hazardous Substances TRGS 401: Risks resulting from skin contact - identification, assessment, measures TRGS 402: Identification and Assessment of the Risks from Activities involving Hazardous Substances: Inhalation Exposure TRGS 500: Protective measures TRGS 555: Working instruction and information for workers TRGS 900: Occupational Exposure Limits
Storage class (LGK, TRGS 510)	: LGK 12 - Non-combustible liquids
VbF class (D)	: Not applicable.

#### Netherlands

Saneringsinspanningen	: C - Minimize discharge
SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: 2-ethylhexanoic acid is listed



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### Denmark

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

### Norway

Norwegian National Regulations : Working Environment Act (LOV-2005-06-17 NO. 62).  
People under the age of 18 may not work with this product at all.

### Sweden

Swedish National Regulations : This product is in compliance with Ordinance 1998:944.  
Work Environment Act (1977: 1160).  
Chemical Hazards in the Working Environment (AFS 2011:19).

### Switzerland

Storage class (LK) : LK 6.1 - Toxic materials

## 15.2. Chemical safety assessment

For this mixture a chemical safety assessment has been not carried out

**A chemical safety assessment has been carried out for the following components of this mixture:**

Ethandiol  
2-ethylhexanoic acid

## SECTION 16: Other information

### Indication of changes:

SDS EU format according to COMMISSION REGULATION (EU) 2020/878. SECTION 1: Identification of the substance/mixture and of the company/undertaking. SECTION 2: Hazards identification. SECTION 3: Composition/ information on ingredients. SECTION 4: First aid measures. SECTION 5: Firefighting measures. SECTION 6: Accidental release measures. SECTION 7 : Precautions for safe handling. SECTION 8: Exposure controls/personal protection. SECTION 9: Physical and chemical properties. SECTION 10: Stability and reactivity. SECTION 11: Toxicological information. SECTION 12: Ecological information. SECTION 13: Disposal considerations. SECTION 14: Transport information. SECTION 15: Regulatory information. SECTION 16: Other information.

### Abbreviations and acronyms:

	Complete text of the H phrases quoted in this Safety Data Sheet. These phrases are reported here for information only, and MAY NOT correspond to the classification of the product.
	N/D = not available
	N/A = not applicable
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
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Effective concentration for 50 percent of test population (median effective concentration)
EC-No.	European Community number
ED	Endocrine disrupting properties
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

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LC50	Lethal concentration for 50 percent of test population (median lethal concentration)
LD50	Lethal dose for 50 percent of test population (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
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals, Regulation (EC) No 1907/2006
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways
SDS	Safety Data Sheet
STP	Sewage treatment plant
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Data sources	: This Safety Data Sheet is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.
Training advice	: Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet.
Other information	: Do not use the product for any purposes that have not been advised by the manufacturer.

### Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4 (Oral)	H302	Calculation method
STOT RE 2	H373	Calculation method

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.