

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

### 1.1 Product identifier

**Product name** : GLACELF MDX  
**Product code** : 32125  
**Product description** : Not available.  
**Product type** : Liquid.  
**Other means of identification** : Not available.

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

#### Identified uses

Not applicable.

#### Uses advised against

Not applicable.

Not applicable.

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

TotalEnergies Lubrifiants  
562 Avenue du Parc de L'île  
92029 Nanterre Cedex FRANCE  
Tél: +33 (0)1 41 35 40 00  
Fax: +33 (0)1 41 35 84 71  
rm.msds-lubs@totalenergies.com

TotalEnergies Marketing UK Limited  
10 Upper Bank Street (19th floor)  
Canary Wharf,  
London E14 5BF  
UNITED KINGDOM  
Tel: +44 (0)20 7339 8000  
Fax: +44 (0)20 7339 8033  
rm.gb-msds@totalenergies.com

H.S.E

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : National Poisons Information Service (NPIS): 111

#### Supplier

**Telephone number** : Emergency telephone: +44 1235 239670

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

Acute Tox. 4, H302  
Repr. 1B, H360D  
STOT RE 2, H373

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**Ingredients of unknown ecotoxicity** : Contains 2.9% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : ☒ Danger

**Hazard statements** : ☒ H302 - Harmful if swallowed.  
H360D - May damage the unborn child.  
H373 - May cause damage to organs through prolonged or repeated exposure.

#### Precautionary statements

**Prevention** : P201 - Obtain special instructions before use.  
P260 - Do not breathe gas, vapour or spray.  
P264 - Wash hands thoroughly after handling.  
P280 - Wear protective gloves, protective clothing and eye or face protection.

**Response** : P308 + P313 - IF exposed or concerned: Get medical advice or attention.  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Contains** : ☒ ethylene glycol  
sodium 2-ethylhexanoate

**Supplemental label elements** : Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Restricted to professional users.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

## SECTION 2: Hazards identification

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration  $\geq 0,1\%$ .


This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

**Other hazards which do not result in classification** : Hazard of slipping on spilt product.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
ethylene glycol	REACH #: 01-2119456816-28 EC: 203-473-3 CAS: 107-21-1 Index: 603-027-00-1	$\geq 90$	Acute Tox. 4, H302 STOT RE 2, H373 (kidneys) (oral)	[1] [2]
disodium tetraborate pentahydrate	REACH #: 01-2119490790-32 EC: 215-540-4 CAS: 12179-04-3 Index: 005-011-02-9	$\leq 3$	Eye Irrit. 2, H319 Repr. 1B, H360FD	[1]
sodium 2-ethylhexanoate	REACH #: Exempt EC: 243-283-8 CAS: 19766-89-3	$\leq 3$	Repr. 1B, H360D  <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

**Additional information** :  Product with ethylene-glycol base This product contains an approved repellent (bitter), for the purpose of avoiding the risk of accidental ingestion

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.

## SECTION 4: First aid measures

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray (fog).

**Unsuitable extinguishing media** : Do not use water jet.

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

**Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products** : carbon monoxide  
carbon dioxide  
Sodium oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6: Accidental release measures

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


**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

**Small spill** :  Stop leak if without risk. Move containers from spill area. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## SECTION 6: Accidental release measures

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/substance	Exposure limit values
ethylene glycol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Particulate TWA: 20 ppm 8 hours. Form: Vapour STEL: 40 ppm 15 minutes. Form: Vapour TWA: 52 mg/m <sup>3</sup> 8 hours. Form: Vapour STEL: 104 mg/m <sup>3</sup> 15 minutes. Form: Vapour

**Reportable hazardous constituent(s) contained in UVCB- and/or multi-constituent substance(s) complying with the classification criteria and/or with an exposure limit (OEL)**

No exposure limit value known.

## SECTION 8: Exposure controls/personal protection

### Biological Limit Values (BLV)

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Advisory OEL** : No known significant effects or critical hazards.

### DNELs/DMELs

Product/substance	Type	Exposure	Value	Population	Effects
ethylene glycol	DNEL	Long term Inhalation	7 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	35 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	53 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	106 mg/kg bw/day	Workers	Systemic
disodium tetraborate pentahydrate	DNEL	Long term Inhalation	6.7 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	316.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.4 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	159.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.79 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.79 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	17.04 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	17.04 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	17.04 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	17.04 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.79 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	3.4 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	6.7 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	159.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	316.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	1 mg/kg bw/day	General population	Systemic
sodium 2-ethylhexanoate	DNEL	Long term Dermal	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term	3.5 mg/m <sup>3</sup>	General	Systemic



## SECTION 8: Exposure controls/personal protection

	DNEL	Inhalation Long term Inhalation	14 mg/m <sup>3</sup>	population Workers	Systemic
--	------	---------------------------------------	----------------------	-----------------------	----------

### PNECs

Product/substance	Compartment Detail	Value	Method Detail
ethylene glycol	Fresh water	10 mg/l	Assessment Factors
	Marine water	1 mg/l	Assessment Factors
	Fresh water sediment	37 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	3.7 mg/kg dwt	-
	Soil	1.53 mg/kg dwt	Equilibrium Partitioning
disodium tetraborate pentahydrate	Sewage Treatment Plant	199.5 mg/l	Assessment Factors
	Fresh water	2.9 mg/l	-
	Marine water	2.9 mg/l	-
	Soil	5.7 mg/kg dwt	-
	Sewage Treatment Plant	10 mg/l	-
sodium 2-ethylhexanoate	Fresh water	0.36 mg/l	Assessment Factors
	Marine water	0.036 mg/l	Assessment Factors
	Fresh water sediment	0.301 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	0.0301 mg/kg dwt	Equilibrium Partitioning
	Soil	0.0579 mg/kg dwt	Equilibrium Partitioning
	Sewage Treatment Plant	71.7 mg/l	Assessment Factors

### 8.2 Exposure controls

#### Appropriate engineering controls

- : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### Individual protection measures

##### Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

##### Eye/face protection

- : safety glasses with side-shields, EN 166.

##### Skin protection

##### Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Neoprene gloves.  
butyl rubber  
nitrile rubber



## SECTION 8: Exposure controls/personal protection

Viton®

In case of prolonged contact with the product, it is recommended to wear gloves complying with ISO 21420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency

- Body protection** : ☒ Wear work clothing with long sleeves.  
Non-skid safety shoes or boots
- Respiratory protection** : ☒ Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces. In case of inadequate ventilation wear respiratory protection: Type A/P2. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid. [Clear]
- Colour** : Green.
- Odour** : Characteristic.
- Melting point/freezing point** : -18°C
- Initial boiling point and boiling range** : ≥160°C (≥320°F)
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Flash point** : Open cup: ≥120°C (≥248°F) [Cleveland Open Cup (COC)]
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- pH** : 7.2
- Viscosity** : Not available.
- Solubility(ies)** :

Media	Result
water	Easily soluble

- Miscible with water** : Yes.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : Not available.
- Relative density** : 1.1218

## SECTION 9: Physical and chemical properties

Density	: 1.1218 g/cm <sup>3</sup> [20°C (68°F)]
Vapour density	: Not available.
<u>Particle characteristics</u>	
Median particle size	: Not applicable.

### 9.2 Other information

No other relevant physical and chemical parameters for the safe use of the product

## SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
10.5 Incompatible materials	: Strong oxidising agents
10.6 Hazardous decomposition products	: carbon monoxide carbon dioxide Sodium oxides

## SECTION 11: Toxicological information

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

#### Acute toxicity

Product/substance	Result	Species	Dose	Exposure	Test
ethylene glycol	LC50 Inhalation Dusts and mists	Rat	>2500 mg/m <sup>3</sup>	6 hours	-
	LD50 Dermal	Mouse	>3500 mg/kg	-	-
	LD50 Oral	Cat	1600 mg/kg	-	-
	LD50 Oral	Rat	7712 mg/kg	-	-
disodium tetraborate pentahydrate	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
	LD50 Oral	Rat - Male	2501 mg/kg	-	OECD 401
sodium 2-ethylhexanoate	LD50 Dermal	Rat	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	Read across 2043 mg/kg Read across	-	OECD 401

#### Acute toxicity estimates

## SECTION 11: Toxicological information

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
GLACELF MDX	1698.5	N/A	N/A	N/A	N/A
ethylene glycol	1600	N/A	N/A	N/A	N/A
disodium tetraborate pentahydrate	2501	N/A	N/A	N/A	N/A
sodium 2-ethylhexanoate	2043	N/A	N/A	N/A	N/A

**Conclusion/Summary** : Based on available data, the classification criteria are met.

### Irritation/Corrosion

Product/substance	Result	Species	Score	Exposure	Test
disodium tetraborate pentahydrate	Eyes - Severe irritant	Rabbit	-	100 mg	-

### Conclusion/Summary

**Skin** : Based on available data, the classification criteria are not met.

**Eyes** : Based on available data, the classification criteria are not met.

**Respiratory** : Based on available data, the classification criteria are not met.

### Sensitisation

### Conclusion/Summary

**Skin** : Based on available data, the classification criteria are not met.

**Respiratory** : Based on available data, the classification criteria are not met.

### Mutagenicity

Product/substance	Test	Experiment	Result
sodium 2-ethylhexanoate	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Negative

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Carcinogenicity

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Reproductive toxicity

**Conclusion/Summary** : Based on available data, the classification criteria are met.

### Teratogenicity

Product/substance	Result	Species	Dose	Exposure
sodium 2-ethylhexanoate	Positive - Oral	Rat	100 mg/kg NOAEL	-

**Conclusion/Summary** : Based on available data, the classification criteria are met.

### Specific target organ toxicity (single exposure)

Not available.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

### Specific target organ toxicity (repeated exposure)

## SECTION 11: Toxicological information

Product/substance	Category	Route of exposure	Target organs
ethylene glycol	Category 2	oral	kidneys

**Conclusion/Summary** : Based on available data, the classification criteria are met.

### Aspiration hazard

Not available.

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Information on likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : Harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations  
**Skin contact** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations  
**Ingestion** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

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

#### Short term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

### Potential chronic health effects

Product/substance	Result	Species	Dose	Exposure
ethylene glycol	Chronic NOAEL Oral	Rat - Male	150 mg/kg	12 months

**Conclusion/Summary** : Not available.

**General** : May cause damage to organs through prolonged or repeated exposure.

## SECTION 11: Toxicological information

<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: May damage the unborn child.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/substance	Result	Species	Exposure	Test
ethylene glycol	Acute EC10 >1995 mg/l	Micro-organism - <i>Activated sludge</i>	30 minutes	ISO 8192
	Acute EC50 6500 to 13000 mg/l	Algae - <i>Selenastrum capricornutum</i>	96 hours	EPA
	Acute EC50 13900 to 57600 mg/l Fresh water	Daphnia	48 hours	OECD 202
	Acute LC50 49000 mg/l Fresh water	Fish - <i>Pimephales promelas</i> - Juvenile (Fledgling, Hatchling, Weanling)	96 hours	ASTM
	Acute LC50 72860 mg/l	Fish - <i>Pimephales promelas</i>	96 hours	OECD 203
	Chronic EC10 100 mg/l	Algae - <i>Selenastrum capricornutum</i>	-	-
	Chronic NOEC 8590 mg/l	Crustaceans - <i>Ceriodaphnia dubia</i>	7 days	EPA 600/4-89/001
	Chronic NOEC 15380 mg/l	Fish - <i>Pimephales promelas</i>	7 days	EPA 600/4-89/001
sodium 2-ethylhexanoate	Acute EC10 71.7 mg/l	Micro-organism - <i>Pseudomonas putida</i>	18 hours	ISO
	Acute EC50 49.3 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours	OECD 201
	Acute EC50 85.4 mg/l Fresh water	Crustaceans - <i>Daphnia magna</i>	48 hours	Directive 79/831/EEC, Annex V, Part C
	Acute LC50 >100 mg/l Fresh water	Fish - <i>Oryzias latipes</i>	96 hours	OECD 203
	Chronic EC10 32 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours	OECD 201
	Chronic NOEC 18 mg/l Fresh water	Crustaceans - <i>Daphnia magna</i>	21 days	OECD 211

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

## SECTION 12: Ecological information

Product/substance	Test	Result	Dose	Inoculum
ethylene glycol	OECD 301A	90 % - Readily - 10 days	-	Activated sludge
sodium 2-ethylhexanoate	OECD 301E	99 % - Readily - 28 days	-	Activated sludge

**Conclusion/Summary** : Not available.

Product/substance	Aquatic half-life	Photolysis	Biodegradability
ethylene glycol	-	-	Readily
sodium 2-ethylhexanoate	-	-	Readily

### 12.3 Bioaccumulative potential

Product/substance	LogP <sub>ow</sub>	BCF	Potential
ethylene glycol	-1.36	-	Low
sodium 2-ethylhexanoate	1.3	-	Low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

**Mobility in soil** : Given its physical and chemical characteristics, the product is generally mobile in the ground the product may evaporate Soluble in water

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration >= 0,1 %.

### 12.6 Endocrine disrupting properties

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.

## SECTION 13: Disposal considerations

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: 16 01 14\*

### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

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

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Maritime transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**UK (GB)/REACH**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**



## SECTION 15: Regulatory information

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Toxic to reproduction	disodium tetraborate, anhydrous	Candidate	-	6/18/2010

### Ozone depleting substances

Not listed.

### Prior Informed Consent (PIC)

Not listed.

### Persistent Organic Pollutants

Not listed.


### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

**Labelling** :  Restricted to professional users.

### Seveso Directive

This product is not controlled under the Seveso Directive.

### EU regulations

 Take note of Dir 94/33/EC on the protection of young people at work.

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.

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

- Australia inventory (AIIC)** : All components are listed or exempted.
- Canada inventory** : All components are listed or exempted.
- China inventory (IECSC)** : All components are listed or exempted.

## SECTION 15: Regulatory information

Europe inventory	: All components are listed or exempted.
Japan inventory	: <b>Japan inventory (CSCL)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
New Zealand Inventory of Chemicals (NZIoC)	: Not determined.
Philippines inventory (PICCS)	: All components are listed or exempted.
Korea inventory (KECI)	: All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.
Thailand inventory	: Not determined.
Turkey inventory	: Not determined.
United States inventory (TSCA 8b)	: All components are listed or exempted.
Vietnam inventory	: Not determined.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

**15.2 Chemical safety assessment** : Risk management measures and safety conditions of use are included in the relevant sections of the SDS

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- DMEL = Derived Minimal Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- vPvB = Very Persistent and Very Bioaccumulative
- PNEC = Predicted No Effect Concentration
- LC50 = Median lethal concentration
- LD50 = Median lethal dose
- OEL = Occupational Exposure Limit
- VOC = Volatile Organic Compound
- UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material
- NOEC No Observed Effect Concentration
- QSAR = Quantitative Structure–Activity Relationship

### Procedure used to derive the classification

Classification	Justification
Acute Tox. 4, H302 Repr. 1B, H360D STOT RE 2, H373	Calculation method Calculation method Calculation method

### Full text of abbreviated H statements

## SECTION 16: Other information

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

### Full text of classifications

Acute Tox. 4	ACUTE TOXICITY - Category 4
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

**Date of printing** : 2023/11/15

**Date of issue/ Date of revision** : 2023/11/15

**Date of previous issue** : 2023/03/09

**Version** : 3

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.