

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

1.1 Product identifier

Product name : COOLELF PLUS -37°C
Product code : 31344
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
m.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
m.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

Hours of operation : Edit the content of sentence <GB Telephone Number - Supplier - Hours of operation> to define this output

Information limitations : Edit the content of sentence <GB Telephone Number - Supplier - Information limitations> to define this output

**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]**

Not classified.

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ingredients of unknown ecotoxicity : Contains 3% of components with unknown hazards to the aquatic environment

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

2.2 Label elements**Signal word** : No signal word.**Hazard statements** : No known significant effects or critical hazards.**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
disodium tetraborate pentahydrate**Supplemental label elements** : Safety data sheet available on request.**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** : 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	≥75 - <80	Acute Tox. 4, H302	[1] [2]
sodium benzoate	REACH #: 01-2119460683-35 EC: 208-534-8 CAS: 532-32-1	≤6.2	Eye Irrit. 2, H319	[1]
disodium tetraborate pentahydrate	REACH #: 01-2119490790-32 EC: 215-540-4 CAS: 12179-04-3 Index: 005-011-02-9	≤3	Eye Irrit. 2, H319 Repr. 1B, H360FD	[1]
			See Section 16 for the full text of the H statements declared above.	

Additional information : Product with ethylene-glycol base

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.
- 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 following exposure or if feeling unwell. 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. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**SECTION 4: First aid measures**

- Ingestion** : Take victim immediately to hospital. SYMPTOMS MAY NOT APPEAR IMMEDIATELY. Wash out mouth with water. Remove dentures if any. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

4.2 Most important symptoms and effects, both acute and delayed**Over-exposure signs/symptoms**

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. nausea or vomiting abdominal cramps and pain convulsive seizures. Can cause central nervous system (CNS) depression.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Rinse mouth. Induce vomiting, but only if victim is fully conscious. Ingestion, depending on the dose, can cause i.a. abnormal behaviour, unconsciousness, convulsions, respiratory paralysis, pulmonary oedemas, as well as damages to liver and kidneys and can lead, in the worst case, to death. A quick treatment of an ethylene-glycol intoxication, when necessary with haemodialysis, may reduce the toxic effects. Intravenous ethyl alcohol in sodium bicarbonate solution is an approved antitoxin.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media** : Use dry chemical, CO₂, 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.

**SECTION 5: Firefighting measures**

- 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. 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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

- 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).
- 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

**SECTION 7: Handling and storage**

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. 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
ethanediol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. TWA: 10 mg/m ³ 8 hours. Form: Particulate TWA: 20 ppm 8 hours. Form: Vapour STEL: 40 ppm 15 minutes. Form: Vapour TWA: 52 mg/m ³ 8 hours. Form: Vapour STEL: 104 mg/m ³ 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.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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
ethanediol	DNEL	Long term Inhalation	7 mg/m ³	General population	Local
	DNEL	Long term Inhalation	35 mg/m ³	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
sodium benzoate	DNEL	Long term Inhalation	0.06 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.1 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	1.5 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	3 mg/m ³	Workers	Systemic



SECTION 8: Exposure controls/personal protection

disodium tetraborate pentahydrate	DNEL	Long term Oral	16.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	31.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	62.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	6.3 µg/m ³	Workers	Local
	DNEL	Long term Dermal	4.5 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	31.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	16.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1.5 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	60 µg/m ³	General population	Local
	DNEL	Long term Inhalation	6.7 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	316.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.4 mg/m ³	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 Oral	0.79 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.79 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	3.4 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	6.7 mg/m ³	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	Short term Inhalation	17.04 mg/m ³	General population	Local
	DNEL	Long term Inhalation	17.04 mg/m ³	General population	Local
	DNEL	Short term Inhalation	17.04 mg/m ³	Workers	Local
DNEL	Long term Inhalation	17.04 mg/m ³	Workers	Local	

PNECs

**SECTION 8: Exposure controls/personal protection**

Product/substance	Compartment Detail	Value	Method Detail
ethanediol	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
	Sewage Treatment Plant	199.5 mg/l	Assessment Factors
sodium benzoate	Fresh water	130 µg/l	-
	Marine water	13 µg/l	-
	Fresh water sediment	1.76 mg/kg dwt	-
	Marine water sediment	176 µg/kg dwt	-
	Soil	60 µg/kg dwt	-
	Sewage Treatment Plant	10 mg/l	-
disodium tetraborate pentahydrate	Secondary Poisoning	300 mg/kg	-
	Fresh water	2.9 mg/l	-
	Marine water	2.9 mg/l	-
	Soil	5.7 mg/kg dwt	-
	Sewage Treatment Plant	10 mg/l	-

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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 eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of 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.

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.

nitrile rubber
Neoprene gloves.
butyl rubber
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

**SECTION 8: Exposure controls/personal protection**

- of its use and its replacement frequency
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- 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** : Blue. Green.
- Odour** : Characteristic.
- Odour threshold** : Not available.
- Melting point/freezing point** : -36°C
- Initial boiling point and boiling range** : 109°C (228.2°F)
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Flash point** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- pH** : 8.4
- Viscosity** : Not available.
- Solubility(ies)** :

Media	Result
Water	Soluble

- Miscible with water** : Yes.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : Not available.
- Relative density** : 1.076
- Density** : 1.076 g/cm³ [20°C (68°F)]

**SECTION 9: Physical and chemical properties****Vapour density** : Not available.**Particle characteristics****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
strong acids
nitrates
peroxides
Chlorates**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 ³	6 hours	-
	LD50 Dermal	Mouse	>3500 mg/kg	-	-
	LD50 Oral	Cat	1600 mg/kg	-	-
	LD50 Oral	Rat	7712 mg/kg	-	-
sodium benzoate	LC50 Inhalation Dusts and mists	Rat	12.2 mg/l	4 hours	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
	LD50 Oral	Rat	4070 mg/kg	-	-
disodium tetraborate pentahydrate	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
	LD50 Oral	Rat - Male	2501 mg/kg	-	OECD 401

Conclusion/Summary : Based on available data, the classification criteria are not met.**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)
COOLELF PLUS -37°C	2000.3	N/A	N/A	N/A	N/A
ethanediol	1600	N/A	N/A	N/A	N/A
sodium benzoate	4070	N/A	N/A	N/A	12.2
disodium tetraborate pentahydrate	2501	N/A	N/A	N/A	N/A

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

- 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

- 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)

Not available.

- 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.

**SECTION 11: Toxicological information**

- Skin contact** : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. nausea or vomiting abdominal cramps and pain convulsive seizures Can cause central nervous system (CNS) depression.

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
Ethanediol	Chronic NOAEL Oral	Rat - Male	150 mg/kg	12 months

- Conclusion/Summary** : Not available.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

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**SECTION 12: Ecological information****12.1 Toxicity**

**SECTION 12: Ecological information**

Product/substance	Result	Species	Exposure	Test
ethylene glycol	Acute EC10 >1995 mg/l	Micro-organism - Activated sludge	30 minutes	ISO 8192
	Acute EC50 6500 to 13000 mg/l	Algae - Selenastrum capricornutum	96 hours	EPA
	Acute EC50 13900 to 57600 mg/l Fresh water	Daphnia	48 hours	OECD 202
	Acute LC50 72860 mg/l	Fish - Pimephales promelas	96 hours	OECD 203
	Chronic EC10 100 mg/l	Algae - Selenastrum capricornutum	-	-
	Chronic NOEC 8590 mg/l	Crustaceans - Ceriodaphnia dubia	7 days	EPA 600/4-89/001
	Chronic NOEC 15380 mg/l	Fish - Pimephales promelas	7 days	EPA 600/4-89/001
sodium benzoate	Acute EC50 30.5 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	201
	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LC50 484 mg/l	Fish	96 hours	-
	Acute LC50 484000 µg/l Fresh water	Fish - Pimephales promelas	96 hours	-

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/substance	Test	Result	Dose	Inoculum
ethanediol	OECD 301A	90 % - Readily - 10 days	-	Activated sludge

Conclusion/Summary : Not available.

Product/substance	Aquatic half-life	Photolysis	Biodegradability
ethanediol	-	-	Readily
sodium benzoate	-	-	Readily

12.3 Bioaccumulative potential

Product/substance	LogP _{ow}	BCF	Potential
ethanediol	-1.36	-	low
sodium benzoate	-2.13	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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.

**SECTION 12: Ecological information****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.
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. 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
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-

**SECTION 14: Transport information**

14.5 Environmental hazards	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

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 : Restricted to professional users.

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

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

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.

Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work

**SECTION 15: Regulatory information**

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. |
| Europe inventory | : <input checked="" type="checkbox"/> All components are listed or exempted. |
| Japan inventory | : Japan inventory (CSCL) : At least one component is not listed.
Japan inventory (ISHL) : Not determined. |
| New Zealand Inventory of Chemicals (NZIoC) | : All components are listed or exempted. |
| 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 | : <input checked="" type="checkbox"/> All components are listed or exempted. |
| Turkey inventory | : Not determined. |
| United States inventory (TSCA 8b) | : All components are listed or exempted. |
| Vietnam inventory | : All components are listed or exempted. |

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 : This product contains substances for which Chemical Safety Assessments are still required.

**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

Not classified.

Full text of abbreviated H statements

✔H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.

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

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Notice to reader

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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.