

previous revision date : 2023/08/02

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

#### 1.1 Product identifier

Product name : FLUIDMATIC D3  
UFI : CEFX-E8WK-300U-1K9H

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

Identified uses
Transmission fluids

#### 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 Romania SA  
Str. Stejarilor, nr. 2, Cristian,  
Brasov, 507055  
Tel: 00 40 268 40 17 11  
Fax: 00 40 268 40 17 26  
fds-romania@totalenergies.com

#### Contact

H.S.E

#### 1.4 Emergency telephone number

##### National advisory body/Poison Center

Telephone number : Romania  
Emergency Clinical Hospital Bucharest (non-stop, 24 h/7d): 021 5992300, int. 182, 444, 213, 455  
Other bodies responsible for receiving health information:  
Targu Mures County Emergency Clinical Hospital Direct phone: 0265 210 110  
Central Telephone (non-stop, 24 h/7z): 0372 653 100; 0372 683 700; 0265 212 111  
Other institutions (child poisoning): Grigore Alexandrescu Children's Hospital,  
Bucharest TOXAPEL Telephone (24h/24h): 021 2106282; 021 2106183  
Moldavia  
Serviciul Național Unic Pentru Apelurile de Urgență: 112

##### Supplier

Telephone number : Emergency phone: +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]**

Skin Sens. 1, H317

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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** : Warning

**Hazard statements** : H317 - May cause an allergic skin reaction.

**Precautionary statements**

**General** : P101 - If medical advice is needed, have product container or label at hand.  
P102 - Keep out of reach of children.  
P103 - Read carefully and follow all instructions.

**Prevention** : P280 - Wear protective gloves.  
P261 - Avoid breathing gas, vapor or spray.

**Response** : P362 + P364 - Take off contaminated clothing and wash it before reuse.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.

**Storage** : Not applicable.

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

**Contains** : Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates

**Supplemental label elements** : Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

### 2.3 Other hazards

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 spilled product.



## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

Product/substance	Identifiers	% (w/w)	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Distillates (petroleum), hydrotreated light paraffinic	REACH #: 01-2119487077-29 EC: 265-158-7 CAS: 64742-55-8	≥50 - ≤75	Asp. Tox. 1, H304	-	[1] [2]
Distillates (petroleum), hydrotreated light naphthenic	REACH #: 01-2119480375-34 EC: 265-156-6 CAS: 64742-53-6 Index: 649-466-00-2	≤3	Asp. Tox. 1, H304	-	[1] [2]
Distillates (petroleum), hydrotreated light paraffinic	REACH #: 01-2119487077-29 EC: 265-158-7 CAS: 64742-55-8	≤3	Asp. Tox. 1, H304	-	[1] [2]
Distillates (petroleum), solvent-dewaxed light paraffinic	REACH #: 01-2119480132-48 EC: 265-159-2 CAS: 64742-56-9 Index: 649-469-00-9	≤3	Asp. Tox. 1, H304	-	[1] [2]
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	REACH #: 01-2119474878-16 EC: 276-737-9 CAS: 72623-86-0 Index: 649-482-00-X	≤3	Asp. Tox. 1, H304	-	[1] [2]
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	REACH #: 01-2119474889-13 EC: 276-738-4 CAS: 72623-87-1 Index: 649-483-00-5	≤3	Asp. Tox. 1, H304	-	[1] [2]
Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates	REACH #: 01-0000016426-70 EC: 417-450-2 Index: 650-042-00-4	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
Phenol, dodecyl-, branched	REACH #: 01-2119513207-49 EC: 310-154-3 CAS: 121158-58-5	<0.1	Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F (oral) Aquatic Acute 1, H400 Aquatic Chronic 1, H410 <b>See Section 16 for the full text of the H statements declared above.</b>	M [Acute] = 10 M [Chronic] = 10	[1] [3]

**Additional information** : Mineral oil of petroleum origin. Product containing mineral oil with less than 3% DMSO extract as measured by IP 346



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

[3] Substance of equivalent concern

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 if irritation occurs.
- 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 adverse health effects persist or are severe. 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** : Wash skin thoroughly with soap and water or use recognized skin cleanser. 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. 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 adverse health effects persist or are severe. 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. 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** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking
- Ingestion** : No specific data.

### 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>, water spray (fog) or foam.
- 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  
nitrogen oxides  
phosphorus oxides  
sulfur oxides  
Hydrogen sulfide  
Mercaptans

### 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized 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 spilled 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 materials 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 release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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. Contaminated absorbent material may pose the same hazard as the spilled product.
- 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

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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. 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 unlabeled 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
Distillates (petroleum), hydrotreated light paraffinic	<b>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). [Mineral oil, other than mineral oils that have previously been used in internal combustion engines to lubricate and cool moving parts of the engine]</b> VLA: 5 mg/m <sup>3</sup> 8 hours. Short term: 10 mg/m <sup>3</sup> 15 minutes.
Distillates (petroleum), hydrotreated light naphthenic	<b>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). [Mineral oil, other than mineral oils that have previously been used in internal combustion engines to lubricate and cool moving parts of the engine]</b> VLA: 5 mg/m <sup>3</sup> 8 hours. Short term: 10 mg/m <sup>3</sup> 15 minutes.



Distillates (petroleum), hydrotreated light paraffinic	<b>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). [Mineral oil, other than mineral oils that have previously been used in internal combustion engines to lubricate and cool moving parts of the engine]</b> VLA: 5 mg/m <sup>3</sup> 8 hours. Short term: 10 mg/m <sup>3</sup> 15 minutes.
Distillates (petroleum), solvent-dewaxed light paraffinic	<b>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). [Mineral oil, other than mineral oils that have previously been used in internal combustion engines to lubricate and cool moving parts of the engine]</b> VLA: 5 mg/m <sup>3</sup> 8 hours. Short term: 10 mg/m <sup>3</sup> 15 minutes.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	<b>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). [Mineral oil, other than mineral oils that have previously been used in internal combustion engines to lubricate and cool moving parts of the engine]</b> VLA: 5 mg/m <sup>3</sup> 8 hours. Short term: 10 mg/m <sup>3</sup> 15 minutes.
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	<b>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). [Mineral oil, other than mineral oils that have previously been used in internal combustion engines to lubricate and cool moving parts of the engine]</b> VLA: 5 mg/m <sup>3</sup> 8 hours. Short term: 10 mg/m <sup>3</sup> 15 minutes.

**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.

**Biological Limit Values (BLV)**

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Advisory OEL** : Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m<sup>3</sup>, NIOSH (REL) TWA 5 mg/m<sup>3</sup>, STEL 10 mg/m<sup>3</sup>, ACGIH (TLV) TWA 5 mg/m<sup>3</sup> (highly refined)

**DNELs/DMELs**

Product/substance	Type	Exposure	Value	Population	Effects
Distillates (petroleum), hydrotreated light paraffinic	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
	Distillates (petroleum), hydrotreated light naphthenic	DNEL	Long term Oral	0.74 mg/kg bw/day	General population



Distillates (petroleum), hydrotreated light paraffinic	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
Distillates (petroleum), solvent-dewaxed light paraffinic	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	5.4 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	1.2 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Local
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
Phenol, dodecyl-, branched	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	1.7621 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Oral	0.075 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.075 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1.19 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Local





	DNEL	Long term Dermal	0.25 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.79 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Oral	1.26 mg/ kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	13.26 mg/ m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	44.18 mg/ m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Dermal	50 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	166 mg/kg bw/day	Workers	Systemic

**PNECs**

Product/ingredient name	Compartment Detail	Name	Method Detail
Phenol, dodecyl-, branched	Fresh water	0.000074 mg/l	-
	Marine water	0.000074 mg/l	-
	Fresh water sediment	0.226 mg/kg dwt	-
	Marine water sediment	0.0266 mg/kg dwt	-
	Soil	0.118 mg/kg dwt	-
	Sewage Treatment Plant	100 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. Contaminated work clothing should not be allowed out of the workplace. 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.

Hydrocarbon-proof gloves

nitrile rubber

Fluorinated rubber

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.

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/P1. 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. [limpid]
- Color** : Red.
- Odor** : Characteristic.
- pH** : Not applicable. Product is non-soluble (in water).
- Melting point/freezing point** : Technically not possible to measure
- Initial boiling point and boiling range** : >316°C [ISO 3405]
- Flash point** : Open cup: >198°C [ASTM D 92]
- Flammability** : Not applicable.
- Lower and upper explosion limit** : Lower: 0.9%  
Upper: 7%
- Vapor pressure** : <0.013 kPa [room temperature]  
Not applicable. [50°C]
- Vapor density** : >2 [Air = 1]
- Relative density** : 0.8435 [ISO EN 3675]
- Density** : 0.8435 g/cm<sup>3</sup> [15°C] [ISO EN 3675]
- Solubility(ies)** :

Media	Result
water	Not soluble

- Miscible with water** : No.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Auto-ignition temperature** : >198°C [ASTM E 659]
- Decomposition temperature** : Not applicable.
- Viscosity** : Kinematic (40°C): 34.95 mm<sup>2</sup>/s [ASTM D 445]

#### Particle characteristics

- Median particle size** : Not applicable.

### 9.2 Other information



Pour point : -45°C (-49°F)

## 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 oxidizing agents
- 10.6 Hazardous decomposition products** : carbon monoxide  
carbon dioxide  
nitrogen oxides  
phosphorus oxides  
sulfur oxides  
Hydrogen sulfide  
Mercaptans

## 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
Distillates (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 420
Distillates (petroleum), hydrotreated light naphthenic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	OECD 403
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
Distillates (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5.53 mg/l	4 hours	OECD 403 Acute Inhalation Toxicity
	LD50 Dermal	Rabbit - Male, Female	>5000 mg/kg	-	OECD 402 Acute Dermal Toxicity
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-	OECD 401 Acute Oral Toxicity
Distillates (petroleum), solvent-dewaxed light paraffinic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
Lubricating oils (petroleum), C15-30, hydrotreated	LC50 Inhalation Dusts and mists	Rat	5.53 mg/l	4 hours	OECD 403



neutral oil-based	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	LC50 Inhalation Dusts and mists	Rat	5.1 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit - Male, Female	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-	Read across OECD 401
Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates	LC50 Inhalation Dusts and mists	Rat	5.1 mg/l	4 hours	Read across -
Phenol, dodecyl-, branched	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
	LD50 Dermal	Rabbit	15000 mg/kg	-	-
	LD50 Oral	Rat	2100 mg/kg	-	-

**Acute toxicity estimates**

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	N/A	N/A	N/A	N/A	5.53
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	N/A	N/A	N/A	N/A	5.1
Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates	N/A	N/A	N/A	N/A	5.1
Phenol, dodecyl-, branched	2100	15000	N/A	N/A	N/A

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

**Irritation/Corrosion**

Product/substance	Result	Species	Score	Exposure	Test
Phenol, dodecyl-, branched	Eyes - Irritant Skin - Severe irritant	Rabbit Rabbit	- -	- 4 hours	OECD 405 OECD 404

**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.

**Sensitization**

Product/substance	Route of exposure	Species	Result
Phenol, dodecyl-, branched	skin	Guinea pig	Not sensitizing

**Conclusion/Summary**

**Skin** : Based on available data, the classification criteria are met.

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

**Mutagenicity**



Product/substance	Test	Experiment	Result
Phenol, dodecyl-, branched	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal	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**

Product/substance	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Phenol, dodecyl-, branched	-	Positive	Negative	Rat - Male, Female	Oral: 15 mg/kg NOAEL	-

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

#### **Teratogenicity**

Product/substance	Result	Species	Dose	Exposure
Phenol, dodecyl-, branched	Negative - Oral	Rat	100 mg/kg NOAEL	-

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

#### **Specific target organ toxicity (single exposure)**

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

#### **Specific target organ toxicity (repeated exposure)**

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

#### **Aspiration hazard**

Product/substance	Result
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light naphthenic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-dewaxed light paraffinic	ASPIRATION HAZARD - Category 1
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1

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

**Information on the 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** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

**Ingestion** : No known significant effects or critical hazards.

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



<b>Eye contact</b>	: No specific data.
<b>Inhalation</b>	: No specific data.
<b>Skin contact</b>	: Adverse symptoms may include the following: irritation redness dryness cracking
<b>Ingestion</b>	: No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

**Long term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

**Potential chronic health effects**

Product/substance	Result	Species	Dose	Exposure
Phenol, dodecyl-, branched	Sub-acute NOAEL Oral	Rat - Male, Female	60 mg/kg	-

<b>Conclusion/Summary</b>	: Not available.
<b>General</b>	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: 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**

Not available.

**SECTION 12: Ecological information**

This product contains one or more components that have a branched alkylphenol impurity which is very toxic to aquatic life (disclosed in section 3). Components containing the impurity have been tested and are not toxic to aquatic life. Therefore, the data in Section 3 for the alkylphenol impurity should not be used to classify the product for aquatic toxicity.

**12.1 Toxicity**



Product/substance	Result	Species	Exposure	Test	
Distillates (petroleum), hydrotreated light paraffinic	Acute EC50 >100 mg/l	Algae - <i>Pseudokirchnerella subcapitata</i>	48 hours	OECD 201	
	Acute EC50 >10000 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	OECD 202	
	Chronic NOEL 10 mg/l	Daphnia - <i>Daphnia magna</i>	21 days	OECD 211	
	Chronic NOEL >1000 mg/l	Fish - <i>Oncorhynchus mykiss</i>	21 days	-	
Distillates (petroleum), hydrotreated light naphthenic	Acute EC50 >1000 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	-	
	Acute LC50 5001 mg/l	Fish	96 hours	-	
Distillates (petroleum), hydrotreated light paraffinic	Acute EC50 101 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	OECD 202	
	Acute LC50 101 mg/l	Fish	96 hours	-	
Distillates (petroleum), solvent-dewaxed light paraffinic	Acute EL50 >100 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201	
	Acute EL50 10000 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202	
	Acute EL50 ≥100 mg/l	Fish - <i>Pimephales promelas</i>	96 hours	OECD 203	
	Chronic NOEL >100 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201	
	Chronic NOEL >1000 mg/l	Crustaceans - <i>Daphnia magna</i>	21 days	OECD 211	
	Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Acute EL50 >100 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
		Acute EL50 >10000 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
		Acute LL50 >1000 mg/l	Fish - <i>Pimephales promelas</i>	96 hours	OECD 203
Chronic NOEL >100 mg/l		Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201	
Chronic NOEL >1000 mg/l		Crustaceans - <i>Daphnia magna</i>	21 days	OECD 211	
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based		Acute EL50 >100 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	48 hours	OECD 201
		Acute EL50 >10000 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
		Acute LL50 >100 mg/l	Fish - <i>Pimephales promelas</i>	96 hours	OECD 203
	Chronic NOEL >100 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201	
	Chronic NOEL >1000 mg/l	Crustaceans - <i>Daphnia magna</i>	21 days	OECD 211	
	Reaction product of: polyethylene-polyamine- (C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates Phenol, dodecyl-, branched	Acute EC50 22 mg/l	Algae - <i>Selenastrum capricornutum</i>	72 hours	EU C1
		Acute EC50 0.36 mg/l	Algae - <i>Scenedesmus subspicatus</i>	72 hours	OECD 201
		Acute EC50 0.037 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	OECD 202
Acute LC50 40 mg/l		Fish	96 hours	-	
Chronic NOEC 0.0037 mg/l		Daphnia - <i>Daphnia magna</i>	21 days	OECD 211	



**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Product/substance	Test	Result	Dose	Inoculum
Distillates (petroleum), solvent-dewaxed light paraffinic	OECD 301F	31 % - Not readily - 28 days	-	Activated sludge
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	OECD 301F	31 % - Not readily - 28 days	-	Activated sludge
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	OECD 301F	31 % - Not readily - 28 days	-	Activated sludge

**Conclusion/Summary** : Not available.

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated light naphthenic	-	-	Not readily
Distillates (petroleum), solvent-dewaxed light paraffinic	-	-	Not readily
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	-	-	Not readily
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	-	-	Not readily
Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates	-	-	Not readily
Phenol, dodecyl-, branched	-	-	Not readily

### 12.3 Bioaccumulative potential

Product/substance	LogK <sub>ow</sub>	BCF	Potential
Distillates (petroleum), solvent-dewaxed light paraffinic	3.1	-	Low
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	6.1	-	High
Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates	6.6	-	High
Phenol, dodecyl-, branched	7.14	794.33	High

### 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 generally shows low soil mobility. The product is insoluble and floats on water. Loss by evaporation is limited.





### 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

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized 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: 13 02 05\*

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimized 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 spilled 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	-	-	-	-



14.5 Environmental hazards	No.	No.	No.	No.
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**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**

### EU Regulation (EC) No. 1907/2006 (REACH)

#### Annex XIV - List of substances subject to authorization

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
Phenol, dodecyl-, branched	Toxic to reproduction Substance of equivalent concern for human health	Candidate	-	-
Phenol, dodecyl-, branched		Candidate	-	-
Phenol, dodecyl-, branched	Substance of equivalent concern for environment	Candidate	-	-

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

#### Other 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

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

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

**Explosive precursors** : Not applicable.

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Persistent Organic Pollutants

Not listed.

#### Seveso Directive



This product is not controlled under the Seveso Directive.

### National regulations

#### National regulatory information

GD 398/2010 on establishing measures for application of Regulation (EC) no. 1.272 / 2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC, and amending Regulation ( EC). 1.907 / 2006GD 477/2009 on establishing penalties for infringements of the provisions of Regulation (EC) no. 1.907 / 2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Agency for Chemicals, amending Directive 1999/45 / EC and repealing Regulation (EEC) No . 793/93 and Regulation (EC) no. 1,488 / 94 Commission and Council Directive 76/769 / EEC and Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC of the CommissionGD 1218/2006 laying down minimum requirements for safety and health at work for the protection of workers from risks related to chemical agents

#### 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.

##### LU - Luxembourg prohibited chemicals in the workplace

Not listed.

#### Inventory list

<b>Australia inventory (AIIIC)</b>	: All components are listed or exempted.
<b>Canada inventory (DSL/NDSL)</b>	: All components are listed or exempted.
<b>China inventory (IECSC)</b>	: All components are listed or exempted.
<b>Europe inventory (EC)</b>	: All components are listed or exempted.
<b>Japan inventory</b>	: <b>Japan inventory (CSCL)</b> : At least one component is not listed. <b>Japan inventory (ISHL)</b> : Not determined.
<b>New Zealand Inventory of Chemicals (NZIoC)</b>	: All components are listed or exempted.
<b>Philippines inventory (PICCS)</b>	: All components are listed or exempted.
<b>Korea inventory (KECI)</b>	: Not determined.
<b>Taiwan Chemical Substances Inventory (TCSI)</b>	: All components are listed or exempted.
<b>Thailand inventory</b>	: Not determined.
<b>Turkey inventory</b>	: 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** : ACGIH = American Conference of Governmental Industrial Hygienists  
 ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 DMEL = Derived Minimal Effect Level  
 DMSO = Dimethyl Sulfoxide  
 EL50 = median Effective Loading  
 EUH statement = CLP-specific Hazard statement  
 HSE = Health, Safety and Environment  
 IC50 = Half maximal inhibitory concentration  
 IDHL = Immediately dangerous to life or health  
 LC50 = Median lethal concentration  
 LD50 = Median lethal dose  
 LL50 = median Lethal Loading  
 LogPow = logarithm of the octanol/water partition coefficient  
 N/A = Not available  
 NIOSH = National Institute of Occupational Safety and Health  
 NOAEL = No Observed Adverse Effect Level  
 NOEC = No Observed Effect Concentration  
 NOEL = No Observed Effect Level  
 NOELR = No observed Effect Loading Rate  
 OECD = Organisation for Economic Co-operation and Development  
 OEL = Occupational Exposure Limit  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 QSAR = Quantitative Structure–Activity Relationship  
 REL = Recommended Exposure Limit  
 STEL = Short Term Exposure Limit  
 TLV = Threshold Limit Value  
 TWA = Time Weight Average  
 VOC = Volatile Organic Compound  
 vPvB = Very Persistent and Very Bioaccumulative  
 Unique Formula Identifier (UFI)  
 UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method

### Full text of abbreviated H statements



H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]**

Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 1B	TOXIC TO REPRODUCTION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1

Date of revision : 2024/02/16

previous revision date : 2023/08/02

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.