



TotalEnergies

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Commission Regulation (EU) 2020/878

FLUIDMATIC LV MV

SDS #: 090529

previous revision date : 2023/11/07

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

1.1 Product identifier

Product name : FLUIDMATIC LV MV

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

Identified uses
Transmission fluids Formulation additives, lubricants and greases - Industrial General use of lubricants and greases in vehicles or machinery - Industrial

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]

Aquatic Chronic 3, H412

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

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

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

Supplemental label elements : Contains 4,4'-thiodiethylene hydrogen -2-octadecenylsuccinate. May produce an allergic reaction.

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	≥ 25 - ≤ 50	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 mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	REACH #: 01-0000015551-76 EC: 406-040-9 CAS: 125643-61-0	≤3	Aquatic Chronic 4, H413	-	[1]
Reaction products of fatty acids, C14-C18 (branched and linear) and C18 (unsaturated) with tetraethylenepentamine (linear, branched, cyclic)	REACH #: 01-2119960832-33 EC: 701-204-9	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319	-	[1]
Reaction product of alkylthioalcohol and substituted phosphorus compound	REACH #: 01-0000017126-75 EC: 424-820-7	≤0.3	Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Dermal] = 1100 mg/kg M [Acute] = 10 M [Chronic] = 10	[1]
4,4'-thiodiethylene hydrogen -2-octadecenylsuccinate	EC: 299-434-3 CAS: 93882-40-7	≤0.3	Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 See Section 16 for the full text of the H statements declared above.	-	[1]

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

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. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel.
- 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** : Adverse symptoms may include the following:
irritation
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, CO₂, 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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Carbon monoxide
carbon dioxide
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. 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). Water polluting material.

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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. 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 : See exposure scenarios

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	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] VLA: 5 mg/m ³ 8 hours. Short term: 10 mg/m ³ 15 minutes.
Distillates (petroleum), hydrotreated light paraffinic	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] VLA: 5 mg/m ³ 8 hours. Short term: 10 mg/m ³ 15 minutes.
Distillates (petroleum), solvent-dewaxed light paraffinic	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] VLA: 5 mg/m ³ 8 hours. Short term: 10 mg/m ³ 15 minutes.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	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] VLA: 5 mg/m ³ 8 hours. Short term: 10 mg/m ³ 15 minutes.
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	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] VLA: 5 mg/m ³ 8 hours. Short term: 10 mg/m ³ 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/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (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 ³	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m ³	Workers	Local
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 ³	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m ³	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 ³	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m ³	Workers	Local
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	DNEL	Long term Inhalation	5.4 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	1.2 mg/m ³	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 ³	General population	Local
Lubricating oils (petroleum), C20-50,	DNEL	Long term Inhalation	2.73 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m ³	Workers	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Local



hydrotreated neutral oil-based	DNEL	Long term Oral	kg bw/day 0.74 mg/ kg bw/day	population General population	Systemic
	DNEL	Long term Dermal	0.97 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m ³	General population	Local
	DNEL	Long term Inhalation	2.73 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5.58 mg/m ³	Workers	Local
	DNEL	Long term Dermal	0.006 mg/ cm ²	Workers	Local
	DNEL	Long term Oral	0.16 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.22 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.33 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.74 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	1 mg/cm ²	Workers	Local
	DNEL	Long term Inhalation	2.33 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	8.33 mg/ cm ²	General population	Local
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl- 4-hydroxyphenyl)propionate	DNEL	Short term Oral	50 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	50 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	875 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	1750 mg/ m ³	Workers	Systemic
	DNEL	Long term Inhalation	1.76 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.43 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.25 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.25 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.5 mg/kg bw/day	General population	Systemic
Reaction product of alkylthioalcohol and substituted phosphorus compound	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.526 mg/ m ³	Workers	Systemic
	DNEL	Long term Inhalation			
4,4'-thiodiethylene hydrogen -2-octadecenylsuccinate	DNEL	Long term Oral	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.526 mg/ m ³	Workers	Systemic

PNECs



Product/ingredient name	Compartment Detail	Name	Method Detail
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Fresh water	0.0043 mg/l	-
	Marine water	0.00043 mg/l	-
	Fresh water sediment	233 mg/kg dwt	-
	Marine water sediment	23.3 mg/kg dwt	-
	Soil	189 mg/kg	-
Reaction products of fatty acids, C14-C18 (branched and linear) and C18 (unsaturated) with tetraethylenepentamine (linear, branched, cyclic)	Fresh water	0.46 mg/l	-
	Marine water	0.046 mg/l	-
	Fresh water sediment	38100 mg/kg dwt	-
	Marine water sediment	3810 mg/kg dwt	-
	Sewage Treatment Plant	1000 mg/l	-
Reaction product of alkylthioalcohol and substituted phosphorus compound	Soil	10 mg/kg dwt	-
	Secondary Poisoning	33.3 mg/kg dwt	-
	Fresh water	0.0009 mg/l	-
	Marine water	0.00009 mg/l	-
	Fresh water sediment	0.0735 mg/kg dwt	-
4,4'-thiodiethylene hydrogen -2-octadeceny succinate	Marine water sediment	0.00735 mg/kg dwt	-
	Soil	0.0146 mg/kg dwt	-
	Sewage Treatment Plant	5 mg/l	-
	Fresh water	0.000062 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 : In case of contact through splashing: 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** : Not applicable.
- Initial boiling point and boiling range** : >316°C
- Flash point** : Open cup: 208°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** : 0.835 [ISO EN 3675]
- Density** : 0.835 g/cm³ [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** : >208°C
- Decomposition temperature** : Not applicable.
- Viscosity** : Kinematic (40°C): 28 mm²/s [ISO 3104]

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
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	5.1 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 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), 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 neutral oil-based	LC50 Inhalation Dusts and mists	Rat	5.53 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), 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,	>5000 mg/kg	-	Read across OECD 401



Reaction products of fatty acids, C14-C18 (branched and linear) and C18 (unsaturated) with tetraethylenepentamine (linear, branched, cyclic)	LC50 Inhalation Dusts and mists	Female Rat	5.1 mg/l	4 hours	Read across -
	LC50 Inhalation Vapor	Rat	80.4 mg/l	1 hours	-
Reaction product of alkylthioalcohol and substituted phosphorus compound	LC50 Inhalation Vapor	Rat	20.1 mg/l	4 hours	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
	LD50 Dermal	Rabbit	1100 mg/kg	-	-
	LD50 Oral	Rat	>2000 mg/kg	-	OECD 401 Acute Oral Toxicity
4,4'-thiodiethylene hydrogen -2-octadecenylsuccinate	LD50 Dermal	Rabbit	>3160 mg/kg	-	OECD 402 Acute Dermal Toxicity
	LD50 Oral	Rat - Male	>10000 mg/kg	-	OECD 401 Acute Oral Toxicity

Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Distillates (petroleum), hydrotreated light paraffinic	N/A	N/A	N/A	N/A	5.1
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 products of fatty acids, C14-C18 (branched and linear) and C18 (unsaturated) with tetraethylenepentamine (linear, branched, cyclic)	N/A	N/A	N/A	20.1	5.1
Reaction product of alkylthioalcohol and substituted phosphorus compound	N/A	1100	N/A	20.1	N/A

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

Irritation/Corrosion

Product/substance	Result	Species	Score	Exposure	Test
Reaction product of alkylthioalcohol and substituted phosphorus compound	Skin - Edema	Rabbit	3.33	1 hours	OECD 404 Acute Dermal Irritation/Corrosion
	Skin - Erythema/Eschar	Rabbit	4	1 hours	OECD 404 Acute Dermal Irritation/Corrosion
4,4'-thiodiethylene hydrogen -2-octadecenylsuccinate	Eyes - Cornea opacity	Rabbit	1	-	OECD 405 Acute Eye Irritation/Corrosion
	Eyes - Edema of the conjunctivae	Rabbit	2	-	OECD 405 Acute Eye



	Eyes - Iris lesion	Rabbit	1	-	Irritation/ Corrosion OECD 405 Acute Eye Irritation/ Corrosion
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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
4,4'-thiodiethylene hydrogen -2-octadecenylsuccinate	skin	Guinea pig	Sensitizing

Conclusion/Summary

- Skin** : Based on available data, the classification criteria are not met. Contains sensitizer
May produce an allergic reaction.
- 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

Product/substance	Result	Species	Dose	Exposure
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert- butyl-4-hydroxyphenyl) propionate	Negative - Oral - TC	Rat - Male, Female	-	-

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

Reproductive toxicity

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

Teratogenicity

- 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 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.
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 : Adverse symptoms may include the following:
irritation
dryness
cracking
Ingestion : No specific data.

Delayed and immediate effects and also 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

Not available.

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

Not available.



SECTION 12: Ecological information

Expert judgment Harmful to aquatic life with long lasting effects.

12.1 Toxicity

Product/substance	Result	Species	Exposure	Test
Distillates (petroleum), hydrotreated light paraffinic	Acute EC50 >100 mg/l	Algae - <i>Pseudokirchnerella subcapitata</i>	72 hours	OECD 201
	Acute EC50 >10000 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	OECD 202
	Chronic NOELR 10 mg/l	Daphnia - <i>Daphnia magna</i>	21 days	OECD 211
	Chronic NOELR >1000 mg/l	Fish - <i>Oncorhynchus mykiss</i>	21 days	-
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), 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>Pseudokircheriella 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>Pseudokircheriella 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 products of fatty acids, C14-C18 (branched and linear) and C18 (unsaturated) with	Acute EC50 94 mg/l	Algae - <i>Pseudokirchnerella subcapitata</i>	96 hours	OECD 201



tetraethylenepentamine (linear, branched, cyclic) Reaction product of alkylthioalcohol and substituted phosphorus compound	Acute EC50 1000 mg/l Acute LC50 1000 mg/l Acute LC50 1000 mg/l Acute NOEC 23 mg/l	Micro-organism Daphnia - <i>Daphnia magna</i> Fish Algae - <i>Pseudokirchnerella</i> <i>subcapitata</i>	3 hours 48 hours 96 hours 96 hours	- OECD 202 - OECD 201
	Chronic NOEC 32 mg/l Acute EC50 0.31 mg/l	Daphnia - <i>Daphnia magna</i> Algae - <i>Selenastrum</i> <i>Capricornutum</i>	21 days 72 hours	OECD 202 OECD 201
	Acute EC50 0.09 mg/l	Crustaceans - <i>Daphnia</i> <i>magna</i>	48 hours	OECD 202
	Acute LC50 1.5 mg/l	Fish - <i>Oncorhynchus</i> <i>mykiss</i>	96 hours	OECD 203
	Chronic NOEL 0.13 mg/l	Algae - <i>Selenastrum</i> <i>Capricornutum</i>	72 hours	OECD 201

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
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert- butyl-4-hydroxyphenyl) propionate	OECD 301B	2 % - Not readily - 28 days	-	Activated sludge
Reaction product of alkylthioalcohol and substituted phosphorus compound	OECD 301B	53 % - Not readily - 60 days	-	Activated sludge

Conclusion/Summary : Not available.

Product/substance	Aquatic half-life	Photolysis	Biodegradability
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 mass of isomers of: C7-9-alkyl 3-(3,5-di-tert- butyl-4-hydroxyphenyl) propionate	-	-	Not readily
Reaction products of fatty acids, C14-C18 (branched	-	-	Not readily



and linear) and C18 (unsaturated) with tetraethylenepentamine (linear, branched, cyclic) Reaction product of alkylthioalcohol and substituted phosphorus compound	-	-	Not readily
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12.3 Bioaccumulative potential

Product/substance	LogK _{ow}	BCF	Potential
Distillates (petroleum), solvent-dewaxed light paraffinic	3.1	-	Low
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	6.1	-	High
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	9.2	260	Low
Reaction products of fatty acids, C14-C18 (branched and linear) and C18 (unsaturated) with tetraethylenepentamine (linear, branched, cyclic)	6.5	-	High

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 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 $\geq 0,1$ %.

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.	9006	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction product of alkylthioalcohol and substituted phosphorus compound)	-	-
14.3 Transport hazard class(es)	-	9	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

ADN : The product is only regulated as a dangerous good when transported in tank vessels.



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

None of the components are listed.

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 Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

DIRECTIVE 2008/68/EC related on the inland transport of dangerous goods

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

Australia inventory (AIIIC)	: Not determined.
Canada inventory (DSL/NDSL)	: All components are listed or exempted.
China inventory (IECSC)	: All components are listed or exempted.
Europe inventory (EC)	: All components are listed or exempted.
Japan inventory	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.
Philippines inventory (PICCS)	: All components are listed or exempted.
Korea inventory (KECI)	: Not determined.
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 : See exposure scenarios

**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
Aquatic Chronic 3, H412	Expert judgment

Full text of abbreviated H statements

H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.



Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Aquatic Chronic 4	AQUATIC HAZARD (LONG-TERM) - Category 4
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
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1

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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.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mixture
Code : 090529
Product name : FLUIDMATIC LV MV

Section 1 - Title

Short title of the exposure scenario : Formulation additives, lubricants and greases - Industrial
List of use descriptors : **Identified use name:** Formulation additives, lubricants and greases - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC15
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02

Processes and activities covered by the exposure scenario : Industrial formulation of lubricant additives, lubricants and greases. Includes material transfers, mixing, large and small scale packing, sampling, maintenance.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

ATIEL-ATC SPERC 2.Ai-I.v1

Amounts used : Volume manufactured/imported (tonnes/year) : 1.00E+04
Fraction of EU tonnage used in region : 0.1
Fraction of regional tonnage used locally : 0.1

Frequency and duration of use : Emission days (days per year) : 300

Environment factors not influenced by risk management : Local freshwater dilution factor : 10
Local marine water dilution factor : 100

Other conditions affecting environmental exposure : Negligible wastewater emissions as process operates without water contact.
Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements) : 5.00E-05
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 2.88E-12
Release fraction to soil from process (after typical onsite RMMs): 0

Technical conditions and measures at process level (source) to prevent release : Common practices vary across sites thus conservative process release estimates used.

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil : Treat air emission to provide a typical removal efficiency of (%) : 70
Prevent discharge of undissolved substance to or recover from onsite wastewater. User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system.

Organizational measures to prevent/limit release from site : Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

Conditions and measures related to sewage treatment plant : Estimated substance removal from wastewater via domestic sewage treatment (%) : 69
Assumed domestic sewage treatment plant flow (m³/d) : 2.00E+03
Maximum allowable site tonnage (M_{safe}) based on release following total wastewater treatment removal (kg/day) : 20 042 743

Date of issue/Date of revision : 6/29/2021

23/26

Conditions and measures related to external treatment of waste for disposal	: External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	: External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

No exposure assessment presented for human health.

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

Exposure estimation and reference to its source - Environment: 1:

Exposure assessment (environment): : Used ECETOC TRA model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 2:

Exposure assessment (human): : The risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see www.atiel.org/reach/introduction .
Health	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. For further information see www.atiel.org/reach/introduction .

Additional good practice advice beyond the REACH CSA

Environment : Not available.

Health : Not available.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mixture
Code : 090529
Product name : FLUIDMATIC LV MV

Section 1 - Title

Short title of the exposure scenario : General use of lubricants and greases in vehicles or machinery - Industrial

List of use descriptors : **Identified use name:** General use of lubricants and greases in vehicles or machinery - Industrial
Process Category: PROC01, PROC02, PROC08b, PROC09
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04, ERC07

Processes and activities covered by the exposure scenario	: Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.
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Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1: ATIEL-ATC SPERC 4.Bi.v1	
Amounts used	: Volume manufactured/imported (tonnes/year) : 2.63E+03 Fraction of EU tonnage used in region : 0.1 Fraction of regional tonnage used locally : 0.1
Frequency and duration of use	: Emission days (days per year) : 300
Environment factors not influenced by risk management	: Local freshwater dilution factor : 10 Local marine water dilution factor : 100
Other conditions affecting environmental exposure	: Negligible wastewater emissions as process operates without water contact. Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements) : 5.00E-05 Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 2.88E-12 Release fraction to soil from process (after typical onsite RMMs): 0
Technical conditions and measures at process level (source) to prevent release	: Common practices vary across sites thus conservative process release estimates used.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: Prevent discharge of undissolved substance to or recover from onsite wastewater. User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system.
Organizational measures to prevent/limit release from site	: Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.
Conditions and measures related to sewage treatment plant	: Estimated substance removal from wastewater via domestic sewage treatment (%): (%) : 69 Assumed domestic sewage treatment plant flow (m ³ /d) : 2.00E+03 Maximum allowable site tonnage (M _{Safe}) based on release following total wastewater treatment removal (kg/day) : 5 273 645

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25/26

Conditions and measures related to external treatment of waste for disposal	: External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	: External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2:

No exposure assessment presented for human health.

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

Exposure estimation and reference to its source - Environment: 1:

Exposure assessment (environment): : Used ECETOC TRA model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 2:

Exposure assessment (human): : The risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	: Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see www.atiel.org/reach/introduction .
Health	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. For further information see www.atiel.org/reach/introduction .

Additional good practice advice beyond the REACH CSA

Environment : Not available.

Health : Not available.