



TotalEnergies

SAFETY DATA SHEET

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

EVOLUTION 900 NF 5W-40

SDS # : 086212

previous revision date : 2022/10/20

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

1.1 Product identifier

Product name : EVOLUTION 900 NF 5W-40

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

Identified uses
Motor oil

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]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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

2.2 Label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Contains Calcium long chain alkaryl sulfonate. May produce an allergic reaction. Safety data sheet available on request.

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

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
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	$\geq 25 - \leq 50$	Asp. Tox. 1, H304	-	[1] [2]
Distillates (petroleum), solvent-refined heavy paraffinic	REACH #: 01-2119488706-23 EC: 265-090-8 CAS: 64741-88-4	$\geq 10 - \leq 25$	Asp. Tox. 1, H304	-	[1] [2]



Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	REACH #: 01-2119657973-23 EC: 272-238-5 CAS: 68784-31-6	<2.5	Eye Dam. 1, H318 Aquatic Chronic 2, H411	-	[1]
Calcium long chain alkaryl sulfonate	EC: 682-816-2 CAS: 722503-68-6	<1	Skin Sens. 1B, H317 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. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- 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** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.



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.

Hazardous combustion products : carbon monoxide
carbon dioxide
phosphorus oxides
sulfur oxides
Hydrogen sulfide
Mercaptans
Zinc oxides

5.3 Advice for firefighters

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

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

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.



- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.
- 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).
- 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
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). [] VLA: 5 mg/m ³ 8 hours. Short term: 10 mg/m ³ 15 minutes.
Distillates (petroleum), solvent-refined heavy paraffinic	HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). [] 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 : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to 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	
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	DNEL	Long term Inhalation	2.73 mg/m ³	Workers	Systemic	
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Local	
	DNEL	Long term Inhalation	5.58 mg/m ³	Workers	Local	
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic	
	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-refined heavy paraffinic	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	
	DNEL	Long term Inhalation	2.73 mg/m ³	Workers	Systemic	
	DNEL	Long term Inhalation	5.58 mg/m ³	Workers	Local	
	Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	DNEL	Long term Oral	0.21 mg/kg bw/day	General population	Systemic
		DNEL	Long term Dermal	2.1 mg/kg bw/day	General population	Systemic
DNEL		Long term Inhalation	2.93 mg/m ³	Workers	Systemic	
DNEL		Long term Dermal	10.42 mg/kg bw/day	Workers	Systemic	
DNEL		Long term	11.75 mg/	General	Systemic	



	DNEL	Inhalation	m ³	population	
	DNEL	Short term Dermal	50 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	100 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	198.6 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	496.4 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	9.6 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	6.6 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	4.8 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1.67 mg/m ³	General population	Systemic
	DNEL	Long term Oral	0.19 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	29 mg/kg bw/day	General population	Systemic

PNECs

Product/ingredient name	Compartment Detail	Name	Method Detail
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	Fresh water	4 µg/l	-
	Marine water	4.6 µg/l	-
	Marine water sediment	0.00701 mg/kg dwt	-
	Soil	0.0548 mg/kg dwt	-
	Sewage Treatment Plant	3.8 mg/l	-

8.2 Exposure controls

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

Individual protection measures

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

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. EN 166

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.



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** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : None under normal use conditions. If these are not sufficient to maintain exposure below the OEL, suitable respiratory protection must be worn (Type A/P1).
- 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** : Brown.
- 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 [EN ISO 3405]
- Flash point** : Open cup: >220°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** : 0.855 [ASTM D 4052]
- Density** : 0.857 g/cm³ [15°C] [ASTM D 4052]
- Solubility(ies)** :

Media	Result
water	Not soluble

- Miscible with water** : No.



Partition coefficient: n-octanol/ water : Not applicable.

Auto-ignition temperature : >220°C [ASTM E 659]

Decomposition temperature : Not applicable.

Viscosity : Kinematic (40°C): 87.5 mm²/s [ASTM D 445]

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

Pour point : <-36°C (<-32.8°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
Zinc oxides

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	Result	Species	Dose	Exposure	Test
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
Distillates (petroleum), solvent-refined heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	5.1 mg/l	4 hours	Read across OECD 403
	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and	LD50 Oral	Rat	>5000 mg/kg	-	OECD 420
	LD50 Dermal	Rabbit	>5000 mg/kg	-	OECD 402 Acute



1,3-dimethylbutyl) esters, zinc salts	LD50 Oral	Rat	3.4 g/kg	-	Dermal Toxicity OECD 401 Acute Oral Toxicity
Calcium long chain alkaryl sulfonate	LC50 Inhalation Dusts and mists	Rat	5.1 mg/l	4 hours	-
	LC50 Inhalation Vapor	Rat	80.4 mg/l	1 hours	-
	LC50 Inhalation Vapor	Rat	20.1 mg/l	4 hours	-

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), C20-50, hydrotreated neutral oil-based	N/A	N/A	N/A	N/A	5.1
Distillates (petroleum), solvent-refined heavy paraffinic	N/A	N/A	N/A	N/A	5.1
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	3400	N/A	N/A	N/A	N/A
Calcium long chain alkaryl sulfonate	N/A	N/A	N/A	20.1	5.1

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

Irritation/Corrosion

Product/substance	Result	Species	Score	Exposure	Test
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	Eyes - Irritant	Rabbit	-	-	OECD 405
	Skin - Edema	Rabbit	0.5	4 hours	OECD 404 Acute Dermal Irritation/ Corrosion
	Skin - Erythema/Eschar	Rabbit	1.3	4 hours	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. The supplier of one or more of the components contained within this formulation has indicated that he has data on the components and/or similar mixtures, which confirms that at the concentration used, classification is not required

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

Sensitization

Product/substance	Route of exposure	Species	Result
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	skin	Guinea pig	Not 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



Product/substance	Test	Experiment	Result
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Negative

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

Carcinogenicity

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

Reproductive toxicity

Product/substance	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	-	Negative	Negative	Rat	Oral: 30 mg/kg NOAEL	-

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
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-refined heavy paraffinic	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

Product/substance	Result	Species	Dose	Exposure
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	Sub-acute NOAEL Oral	Rat	125 mg/kg	-

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : During use in engines, contamination of oil with low levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

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**12.1 Toxicity**

Product/substance	Result	Species	Exposure	Test
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	Acute EL50 >100 mg/l	Algae - Pseudokirchneriella subcapitata	48 hours	OECD 201
	Acute EL50 >10000 mg/l	Crustaceans - Daphnia magna	48 hours	OECD 202
	Acute LL50 >100 mg/l	Fish - Pimephales promelas	96 hours	OECD 203
	Chronic NOEL >100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	OECD 201
	Chronic NOEL >1000 mg/l	Crustaceans - Daphnia magna	21 days	OECD 211
Distillates (petroleum), solvent-refined heavy	Acute EC50 >100 mg/l	Algae - Pseudokirchnerella	48 hours	OECD 201



paraffinic	Acute EC50 >10000 mg/l Chronic NOEL 10 mg/l Chronic NOEL >1000 mg/l	subcapitata Daphnia - Daphnia magna Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	48 hours 21 days 21 days	OECD 202 OECD 211 -
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	Acute EC50 240 mg/l	Algae - Desmodesmus subspicatus	72 hours	-
	Acute EC50 75 mg/l Acute LC50 4.4 mg/l	Daphnia - Daphnia magna Fish	48 hours 96 hours	- -

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/substance	Test	Result	Dose	Inoculum
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
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	-	-	Not readily
Calcium long chain alkaryl sulfonate	-	-	Not readily

12.3 Bioaccumulative potential

Product/substance	LogK _{ow}	BCF	Potential
Distillates (petroleum), solvent-refined heavy paraffinic	3.9 to 6	-	High
Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts	4	-	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. 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.

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

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

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

Explosive precursors :

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)	: All components are listed or exempted.
Canada inventory (DSL/NDSL)	: All components are listed or exempted.
China inventory (IECSC)	: Not determined.
Europe inventory (EC)	: All components are listed or exempted.
Japan inventory	: Japan inventory (CSCL) : All components are listed, exempted, or notified. Japan inventory (ISHL) : Not determined.
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.
Philippines inventory (PICCS)	: At least one component is not listed.
Korea inventory (KECI)	: Not determined.
Taiwan Chemical Substances Inventory (TCSI)	: Not determined.
Thailand inventory	: Not determined.
Turkey inventory	: Not determined.
United States inventory (TSCA 8b)	: All components are listed or exempted.
Vietnam inventory	: Not determined.

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

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

SECTION 16: Other information

🔍 Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- DMEL = Derived Minimal Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- vPvB = Very Persistent and Very Bioaccumulative
- PNEC = Predicted No Effect Concentration



LC50 = Median lethal concentration
 LD50 = Median lethal dose
 OEL = Occupational Exposure Limit
 VOC = Volatile Organic Compound
 UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material
 NOEC No Observed Effect Concentration
 QSAR = Quantitative Structure–Activity Relationship

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

Classification	Justification
Not classified.	

Full text of abbreviated H statements

H304 H317 H318 H411	May be fatal if swallowed and enters airways. May cause an allergic skin reaction. Causes serious eye damage. Toxic to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]

Aquatic Chronic 2 Asp. Tox. 1 Eye Dam. 1 Skin Sens. 1B	AQUATIC HAZARD (LONG-TERM) - Category 2 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION - Category 1B
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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.