

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

1.1 Product identifier

Product name : RUBIA OPTIMA 1100 15W-40
Product code : 087157
Product description : Not available.
Product type : Liquid.
Other means of identification : Not available.

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

Identified uses

Engine oil

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

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

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

H.S.E

1.4 Emergency telephone number

National advisory body/Poison Centre

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

Supplier

Telephone number : Emergency telephone: +44 1235 239670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Not classified.

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

Ingredients of unknown ecotoxicity : Contains 3.9% of components with unknown hazards to the aquatic environment

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

2.2 Label elements

Signal word : No signal word.

Hazard statements : No hazard statement.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Contains Molybdenum polysulphide long chain alkyl dithiocarbamate complex. 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.

2.3 Other hazards

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

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

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

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification	Type
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]
Distillates (petroleum), hydrotreated heavy paraffinic	REACH #: 01-2119484627-25 EC: 265-157-1 CAS: 64742-54-7 Index: 649-467-00-8	≤3	Asp. Tox. 1, H304	[1]
Distillates (petroleum), solvent- dewaxed heavy paraffinic	REACH #: 01-2119471299-27 EC: 265-169-7 CAS: 64742-65-0 Index: 649-474-00-6	≤3	Asp. Tox. 1, H304	[1]
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]
Paraffin oils (petroleum), catalytic dewaxed heavy	REACH #: 01-2119487080-42 EC: 265-174-4 CAS: 64742-70-7	≤3	Asp. Tox. 1, H304	[1]
zinc bis[O-(6-methylheptyl)] bis[O- (sec-butyl)] bis(dithiophosphate)	REACH #: 01-2119543726-33 EC: 298-577-9 CAS: 93819-94-4	<2.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411	[1]
Molybdenum polysulphide long chain alkyl dithiocarbamate complex	REACH #: 01-0000019337-66 EC: 457-320-2	≤0.3	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 3, H412 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

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.
- Skin contact** : Wash skin thoroughly with soap and water or use recognised 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** : 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.
- Hazardous combustion products** : carbon monoxide
carbon dioxide
Silicon Dioxide
phosphorus oxides
sulfur oxides
Hydrogen sulfide
Mercaptans
Zinc oxides

SECTION 5: Firefighting measures

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 British standard BS 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 spilt material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. 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. 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.

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: Handling and storage

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

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

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: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS 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
Reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	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
	DNEL	Short term Oral	50 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	50 mg/kg	General	Systemic

SECTION 8: Exposure controls/personal protection

Distillates (petroleum), hydrotreated heavy paraffinic	DNEL	Short term Inhalation	875 mg/m ³	population General	Systemic
	DNEL	Short term Inhalation	1750 mg/m ³	population 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
Distillates (petroleum), solvent-dewaxed heavy paraffinic	DNEL	Long term Inhalation	5.58 mg/m ³	Workers	Local
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.19 mg/m 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
	DNEL	Long term Oral	0.74 mg/kg bw/day	General population	Systemic
Paraffin oils (petroleum), catalytic dewaxed heavy	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 Oral	0.74 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.97 mg/kg bw/day	Workers	Systemic
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	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 Oral	0.24 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.29 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.58 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.11 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	8.31 mg/m ³	Workers	Systemic

PNECs

SECTION 8: Exposure controls/personal protection

Product/substance	Compartment Detail	Value	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	-
	Secondary Poisoning	9.33 mg/kg	-
	Distillates (petroleum), hydrotreated heavy paraffinic		
	Distillates (petroleum), solvent-dewaxed heavy paraffinic		
	Secondary Poisoning	9.33 mg/kg	-
	zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)		
	Fresh water	0.004 mg/l	-
	Marine water	0.0046 mg/l	-
	Fresh water sediment	0.0116 mg/kg dwt	-
	Marine water sediment	0.00116 mg/kg dwt	-
	Soil	0.00528 mg/kg	-
	Sewage Treatment Plant	100 mg/l	-
	Secondary Poisoning	10.67 mg/kg dwt	-

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.

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 : 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).

SECTION 8: Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. [Clear]
Colour : Amber.
Odour : Characteristic.
Melting point/freezing point : Technically not possible to measure
Initial boiling point and boiling range : >316°C (>600.8°F) [ISO 3405]
Flammability (solid, gas) : Non-flammable.
Upper/lower flammability or explosive limits : Lower: 0.9%
Upper: 7%
Flash point : Open cup: >220°C (>428°F) [ASTM D 92]
Auto-ignition temperature : >250°C (>482°F) [ASTM E 659]
Decomposition temperature : Not applicable.
pH : Not applicable. Product is non-soluble (in water).
Viscosity : ☒ Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): 112 mm²/s [ISO 3104]

Solubility(ies)

:

Media	Result
water	Not soluble

Miscible with water : No.
Partition coefficient: n-octanol/ water : Not applicable.
Vapour pressure : <0.013 kPa (<0.1 mm Hg) [room temperature]
Not applicable. [50°C (122°F)]
Relative density : 0.87 [ISO 12185]
Density : 0.87 g/cm³ [15°C (59°F)] [ISO 12185]
Vapour density : >2 [Air = 1]
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** : No specific data.
- 10.5 Incompatible materials** : Strong oxidising agents
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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 heavy paraffinic	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5 mg/l	4 hours	OECD 403 Read across
	LD50 Dermal	Rabbit - Male, Female	>5000 mg/kg	-	OECD 402 Read across
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-	OECD 401 Read across
Distillates (petroleum), solvent-dewaxed heavy 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
Paraffin oils (petroleum), catalytic dewaxed heavy	LC50 Inhalation Dusts and mists	Rat	5.1 mg/l	4 hours	-
	LC50 Inhalation Vapour	Rat	80.4 mg/l	1 hours	-
	LC50 Inhalation Vapour	Rat	20.1 mg/l	4 hours	-
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	LD50 Dermal	Rabbit	>5000 mg/kg	-	-
	LD50 Oral	Rat	>5000 mg/kg	-	-
	LC50 Inhalation Dusts and mists	Rat - Male	>2 mg/l	1 hours	OECD 403
	LD50 Dermal	Rabbit - Male, Female	>3160 mg/kg	-	OECD 402
	LD50 Oral	Rat - Male	2600 mg/kg	-	-

Acute toxicity estimates

SECTION 11: Toxicological information

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Paraffin oils (petroleum), catalytic dewaxed heavy zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	N/A 2600	N/A N/A	N/A N/A	20.1 N/A	5.1 N/A

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

Irritation/Corrosion

Product/substance	Result	Species	Score	Exposure	Test
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	Eyes - Irritant	Rabbit	-	-	-
	Skin - Irritant	Rabbit	-	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.

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

Sensitisation

Conclusion/Summary :

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

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

Mutagenicity

Product/substance	Test	Experiment	Result
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Negative

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

Product/substance	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	Negative	Negative	Negative	Rat - Male, Female	Oral	-

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

SECTION 11: Toxicological information

Teratogenicity

Product/substance	Result	Species	Dose	Exposure
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	Negative - Oral	Rat - Male, Female	-	-

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

Specific target organ toxicity (single exposure)

Not available.

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

Specific target organ toxicity (repeated exposure)

Not available.

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

Aspiration hazard

Product/substance	Result
Distillates (petroleum), hydrotreated heavy paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-dewaxed heavy paraffinic	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-dewaxed light paraffinic	ASPIRATION HAZARD - Category 1
Paraffin oils (petroleum), catalytic dewaxed heavy	ASPIRATION HAZARD - Category 1

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

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : 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 as well as chronic effects from short and long-term exposure

Short term exposure

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

Long term exposure

SECTION 11: Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/substance	Result	Species	Dose	Exposure
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	Sub-chronic LOAEL Dermal	Rabbit - Male, Female	70 mg/kg	-
	Sub-chronic NOAEL Oral	Rat - Male, Female	160 mg/kg	-

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

12.1 Toxicity

Product/substance	Result	Species	Exposure	Test
Distillates (petroleum), hydrotreated heavy paraffinic	Acute EC50 >100 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
	Acute EC50 >10000 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	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	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Acute EL50 >10000 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LL50 >1000 mg/l	Fish - <i>Oncorhynchus mykiss</i>	96 hours	OECD 203
	Chronic NOEL >1000 mg/l	Crustaceans - <i>Daphnia magna</i>	21 days	OECD 211
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</i>	48 hours	OECD 202

SECTION 12: Ecological information

Paraffin oils (petroleum), catalytic dewaxed heavy	Acute EL50 ≥ 100 mg/l	<i>magna</i> 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
	Acute EC50 10000 mg/l	Daphnia	48 hours	-
	Acute NOEL 101 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	-
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	Acute EC50 2 mg/l	Algae - <i>Selenastrum capricornutum</i>	96 hours	OECD 201
	Acute EC50 5.4 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LC50 4.5 mg/l	Fish - <i>Oncorhynchus mykiss</i>	96 hours	OECD 203
	Chronic NOEC 1 mg/l	Algae - <i>Selenastrum capricornutum</i>	96 hours	OECD 201
	Chronic NOEC 0.4 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 211
	Acute EC50 9.6 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
	Acute EC50 50 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LC50 94.8 mg/l	Fish - <i>Oncorhynchus mykiss</i>	96 hours	OECD 203
Molybdenum polysulphide long chain alkyl dithiocarbamate complex	Chronic NOEC 4.1 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/substance	Test	Result	Dose	Inoculum
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
Distillates (petroleum), hydrotreated heavy paraffinic	OECD 301F	31 % - Not readily - 28 days	-	Activated sludge
Distillates (petroleum), solvent-dewaxed heavy paraffinic	OECD 301F	31 % - Not readily - 28 days	-	Activated sludge
Distillates (petroleum), solvent-dewaxed light paraffinic	OECD 301F	31 % - Not readily - 28 days	-	Activated sludge
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	OECD 301B	0 % - Not readily - 28 days	-	Activated sludge
Molybdenum polysulphide long chain alkyl	OECD 301B	0 % - Not readily - 28 days	-	Activated sludge

SECTION 12: Ecological information

dithiocarbamate complex				
-------------------------	--	--	--	--

Conclusion/Summary : Not available.

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	-	-	Not readily
Distillates (petroleum), hydrotreated heavy paraffinic	-	-	Not readily
Distillates (petroleum), solvent-dewaxed heavy paraffinic	-	-	Not readily
Distillates (petroleum), solvent-dewaxed light paraffinic	-	-	Not readily
Paraffin oils (petroleum), catalytic dewaxed heavy	-	-	Not readily
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	-	-	Not readily
Molybdenum polysulphide long chain alkyl dithiocarbamate complex	-	-	Not readily

12.3 Bioaccumulative potential

Product/substance	LogP _{ow}	BCF	Potential
Reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	9.2	260	Low
Distillates (petroleum), hydrotreated heavy paraffinic	>4	-	High
Distillates (petroleum), solvent-dewaxed heavy paraffinic	9.2	260	Low
Distillates (petroleum), solvent-dewaxed light paraffinic	3.1	-	Low
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis (dithiophosphate)	0.9	-	Low
Molybdenum polysulphide long chain alkyl dithiocarbamate complex	>5.1	88	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

Mobility in soil : Given its physical and chemical characteristics, the product generally shows low soil mobility. The product is insoluble and floats on water. Loss by evaporation is limited.

SECTION 12: Ecological information

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

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

13.1 Waste treatment methods

Product

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

Hazardous waste : Yes.
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: 13 02 05*

Packaging

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

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ICAO/IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-

SECTION 14: Transport information

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 UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

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

Seveso Directive

This product is not controlled under the Seveso Directive.

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

International regulations

SECTION 15: Regulatory information

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia inventory (AIIC)	: Not determined.
Canada inventory	: All components are listed or exempted.
China inventory (IECSC)	: Not determined.
Europe inventory	: 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)	: All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.
Thailand inventory	: Not determined.
Turkey inventory	: Not determined.
United States inventory (TSCA 8b)	: All components are listed or exempted.
Vietnam inventory	: Not determined.

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

15.2 Chemical safety assessment

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
DMEL = Derived Minimal Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available

SECTION 16: Other information

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

Procedure used to derive the classification

Not classified.

Full text of abbreviated H statements

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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

Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Aquatic Chronic 4	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1B	SKIN SENSITISATION - Category 1B

Date of printing : 2024/08/28

Date of issue/ Date of revision : 2024/08/28

Date of previous issue : 2024/04/17

Version : 2.03

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.