

Synmar Hero 5W-30 FE

Version number: 1.0

Date of compilation: 2023-02-02

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

1.1 Product identifier

Trade name **Synmar Hero 5W-30 FE**
Article number S200004

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

Relevant identified uses Lubricants and lubricant additives
Professional use
Consumer use

1.3 Details of the supplier of the safety data sheet

Synmar B.V.
Albert Schweitzerstraat 7
7131 PG Lichtenvoorde
Netherlands

Telephone: +31 (0) 33 303 3044
e-mail: info@synmar.nl
Website: www.synmar.nl

e-mail (competent person) info@synmar.nl

1.4 Emergency telephone number

Emergency information service +31 (0) 33 303 3044
This number is only available during the following office hours: Mon-Fri 09:00 - 17:00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (acc. to GB CLP)
This mixture does not meet the criteria for classification.

Code	Supplemental hazard information
EUH208	contains C14-16-18 Alkyl phenol. May produce an allergic reaction
EUH210	safety data sheet available on request

2.2 Label elements

Labelling (acc. to GB CLP)

- signal word Not required.

- pictograms Not required.

- supplemental hazard information

EUH208 Contains C14-16-18 Alkyl phenol. May produce an allergic reaction.

EUH210 Safety data sheet available on request.

2.3 Other hazards

There is no additional information.

Results of PBT and vPvB assessment

Does not contain any substances that are assessed to be PBT or vPvB $\geq 0.1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0.1\%$.

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SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

The product does not contain (other) ingredients which are classified according to present knowledge of the supplier and contribute to the classification of the product and hence require reporting in this section.

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Distillates (petroleum), hydrotreated heavy paraffinic	CAS No 64742-54-7 EC No 265-157-1 Index No 649-467-00-8	≥ 50	Asp. Tox. 1 / H304		L(b)
Lubricating oils (petroleum), C20-50, hydro-treated neutral oil-based	CAS No 72623-87-1 EC No 276-738-4 Index No 649-483-00-5	10 – 25	Asp. Tox. 1 / H304		L(b)
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	CAS No 125643-61-0 EC No 406-040-9 Index No 607-530-00-7	3 – 5	Aquatic Chronic 4 / H413		
Baseoil - unspecified	CAS No 64742-65-0 EC No 265-169-7 Index No 649-474-00-6	1 – 3	Asp. Tox. 1 / H304		L(b)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	CAS No 93819-94-4 EC No 298-577-9	1 – 3	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Aquatic Chronic 3 / H412		
C14-16-18 Alkyl phenol	CAS No 1190625-94-5 EC No 931-468-2	0.1 – 1	Skin Sens. 1B / H317 STOT RE 2 / H373	 	

Notes

L(b): The classification as a carcinogen is not required. The substance contains less than 3 % DMSO extract

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Name of substance	Identifier	Specific Conc. Limits	M-Factors	ATE	Exposure route
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	CAS No 93819-94-4 EC No 298-577-9	Skin Irrit. 2; H315: C ≥ 6.25 % Eye Dam. 1; H318: C ≥ 12.5 % Eye Irrit. 2; H319: 10 % ≤ C < 12.5 %	-	-	

Remarks

All the percentages given are percentages by weight unless stated otherwise. For full text of H-phrases: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

Following skin contact

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

For specialist advice physicians should contact the poison centre.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray; Foam; Dry extinguishing powder; Carbon dioxide (CO₂);
Co-ordinate firefighting measures to the fire surroundings.

Unsuitable extinguishing media

Water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

During fire hazardous fumes/smoke could be produced: nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂), phosphorus oxides (P_xO_y), hydrogen sulphide (H₂S), sulphur oxides (SO_x), metal oxides.

5.3 Advice for firefighters

Keep containers cool with water spray. In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA). Standard protective clothing for firefighters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area. Special danger of slipping by leaking/spilling product.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Use personal protective equipment as required.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Bunding. Covering of drains.

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.). Pump out large quantities.

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- flammability hazards

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- incompatible substances or mixtures

Keep away from oxidising substances, acids.

Control of effects

Protect against external exposure, such as

High temperatures. UV-radiation/sunlight.

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Consideration of other advice

Store in a well-ventilated place. Keep container tightly closed.

- specific designs for storage rooms or vessels
 - storage temperature
 - maximum storage period
 - packaging compatibilities
- Keep only in original container.

Maximum storage temperature: 40 °C

60 ms

7.3 Specific end use(s)

There is no additional information.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

No information available.

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	DNEL	2.73 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	DNEL	5.58 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	DNEL	0.97 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	DNEL	0.74 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	DNEL	1.19 mg/m ³	human, inhalatory	consumer (private households)	chronic - local effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	1,750 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	875 mg/m ³	human, inhalatory	consumer (private households)	acute - systemic effects

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Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	50 mg/kg bw/day	human, dermal	consumer (private households)	acute - systemic effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	50 mg/kg bw/day	human, oral	consumer (private households)	acute - systemic effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	6.6 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	1.67 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	1.62 mg/m ³	human, inhalatory	consumer (private households)	chronic - systemic effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	0.83 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	DNEL	0.93 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	DNEL	8.31 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	DNEL	0.58 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	DNEL	2.11 mg/m ³	human, inhalatory	consumer (private households)	chronic - systemic effects
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	DNEL	0.29 mg/kg bw/day	human, dermal	consumer (private households)	chronic - systemic effects

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Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	DNEL	0.24 mg/kg bw/day	human, oral	consumer (private households)	chronic - systemic effects
C14-16-18 Alkyl phenol	1190625-94-5	DNEL	1.17 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
C14-16-18 Alkyl phenol	1190625-94-5	DNEL	0.3 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	PNEC	0.018 mg/l	aquatic organisms	freshwater	short-term (single instance)
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	PNEC	0.002 mg/l	aquatic organisms	marine water	short-term (single instance)
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	PNEC	2 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	PNEC	0.2 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	PNEC	10 mg/kg	terrestrial organisms	soil	short-term (single instance)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	PNEC	21 µg/l	aquatic organisms	water	intermittent release
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	PNEC	4 µg/l	aquatic organisms	freshwater	short-term (single instance)

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	PNEC	4.6 µg/l	aquatic organisms	marine water	short-term (single instance)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	PNEC	0.012 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	PNEC	0.001 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	PNEC	0.005 mg/kg	terrestrial organisms	soil	short-term (single instance)
C14-16-18 Alkyl phenol	1190625-94-5	PNEC	1 mg/l	aquatic organisms	water	intermittent release
C14-16-18 Alkyl phenol	1190625-94-5	PNEC	0.1 mg/l	aquatic organisms	freshwater	short-term (single instance)
C14-16-18 Alkyl phenol	1190625-94-5	PNEC	0.01 mg/l	aquatic organisms	marine water	short-term (single instance)
C14-16-18 Alkyl phenol	1190625-94-5	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
C14-16-18 Alkyl phenol	1190625-94-5	PNEC	4,266 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
C14-16-18 Alkyl phenol	1190625-94-5	PNEC	426.6 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
C14-16-18 Alkyl phenol	1190625-94-5	PNEC	852.6 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection

Skin protection



Chemical protective clothing.

- hand protection



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Wear suitable gloves. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- type of material

PVC: polyvinyl chloride, Nitrile rubber, NP: neoprene

- breakthrough time of the glove material

Use gloves with a minimum breakthrough time of the glove material: >10 minutes (permeation: level 1).

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling. Provide eyewash stations and safety showers at the workplace.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/White).

Environmental exposure controls

Take appropriate precautions to avoid uncontrolled release into the environment. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid (oil)
Colour	brown
Odour	characteristic
Melting point/freezing point	-23 °C calculated value, referring to a component of the mixture
Boiling point or initial boiling point and boiling range	>280 °C
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	LEL: 0.6 vol% / UEL: 7 vol%
Flash point	200 °C
Auto-ignition temperature	>240 °C (auto-ignition temperature (liquids and gases))
Decomposition temperature	no data available
pH (value)	not determined
Kinematic viscosity	>25 mm ² /s
Solubility(ies)	not determined

Partition coefficient n-octanol/water (log value)	>3
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Vapour pressure	<0.1 hPa at 20 °C
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Density	not determined
Relative vapour density	>1 at 20 °C (air = 1)

Particle characteristics	not relevant (liquid)
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9.2 Other information

There is no additional information.

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
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Other safety characteristics

9.2.2 .5	Evaporation rate	<0.1 (n-butyl acetate = 1)
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SECTION 10: Stability and reactivity**10.1 Reactivity**

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat. Protect from moisture.

10.5 Incompatible materials

Acids. Oxidisers.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to GHS

This mixture does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

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- acute toxicity of components of the mixture

Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	oral	LD50	>5,000 mg/kg	rat
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	inhalation: dust/mist	LC50	2.18 mg/4h	rat
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	dermal	LD50	>5,000 mg/kg	rabbit
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	oral	LD50	>5,000 mg/kg	rat
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	inhalation: dust/mist	LC50	2.18 mg/4h	rat
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	dermal	LD50	>5,000 mg/kg	rabbit
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	oral	LD50	>2,000 mg/kg	rat
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	dermal	LD50	>2,000 mg/kg	rat
Baseoil - unspecified	64742-65-0	oral	LD50	>5,000 mg/kg	rat
Baseoil - unspecified	64742-65-0	inhalation: dust/mist	LC50	2.18 mg/4h	rat
Baseoil - unspecified	64742-65-0	dermal	LD50	>5,000 mg/kg	rabbit
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	oral	LD50	2,600 mg/kg	rat
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	dermal	LD50	>3,160 mg/kg	rabbit
C14-16-18 Alkyl phenol	1190625-94-5	oral	LD50	>2,000 mg/kg	rat
C14-16-18 Alkyl phenol	1190625-94-5	dermal	LD50	>2,000 mg/kg	rat

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Contains C14-16-18 Alkyl phenol. May produce an allergic reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

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Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0.1\%$.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	LL50	$>100 \text{ mg/l}$	fish	96 h
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	EL50	$>10,000 \text{ mg/l}$	aquatic invertebrates	24 h
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	LL50	$>100 \text{ mg/l}$	fish	96 h
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	EL50	$>10,000 \text{ mg/l}$	aquatic invertebrates	24 h
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	LC50	$>0.001 \text{ mg/l}$	fish	96 h
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	EL50	110 mg/l	aquatic invertebrates	48 h
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	EC50	$>0.008 \text{ mg/l}$	aquatic invertebrates	48 h
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	ErC50	$>0 \text{ mg/l}$	algae	72 h
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	NOEC	0.001 mg/l	fish	96 h
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	NOELR	56 mg/l	aquatic invertebrates	48 h
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	LOEC	0 mg/l	algae	72 h
Baseoil - unspecified	64742-65-0	LL50	$>100 \text{ mg/l}$	fish	96 h
Baseoil - unspecified	64742-65-0	EL50	$>10,000 \text{ mg/l}$	aquatic invertebrates	24 h

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Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	LL50	4.5 mg/l	fish	96 h
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	EC50	5.4 mg/l	aquatic invertebrates	48 h
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	ErC50	2.1 mg/l	algae	72 h
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	NOELR	1.8 mg/l	fish	96 h
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	NOEC	1 mg/l	algae	72 h
C14-16-18 Alkyl phenol	1190625-94-5	LC50	>100 mg/l	fish	96 h
C14-16-18 Alkyl phenol	1190625-94-5	EC50	>100 mg/l	aquatic invertebrates	24 h
C14-16-18 Alkyl phenol	1190625-94-5	ErC50	>100 mg/l	algae	72 h
C14-16-18 Alkyl phenol	1190625-94-5	NOELR	>100 mg/l	aquatic invertebrates	24 h
C14-16-18 Alkyl phenol	1190625-94-5	NOEC	100 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	EL50	>10,000 mg/l	aquatic invertebrates	24 h
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	LL50	>10,000 mg/l	aquatic invertebrates	24 h
Distillates (petroleum), hydro-treated heavy paraffinic	64742-54-7	NOELR	≥1,000 mg/l	fish	14 d
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	NOELR	≥1,000 mg/l	fish	14 d
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	LC50	>100 mg/l	fish	14 d
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	EL50	100 mg/l	aquatic invertebrates	21 d
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	EC50	>1,000 mg/l	microorganisms	3 h
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	NOEC	0.36 mg/l	fish	33 d
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	NOELR	3.2 mg/l	aquatic invertebrates	21 d

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Name of substance	CAS No	Endpoint	Value	Species	Exposure time
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	LOEC	32 mg/l	aquatic invertebrates	21 d
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	growth (EbCx) 10%	>100 mg/l	microorganisms	3 h
Baseoil - unspecified	64742-65-0	LL50	>10,000 mg/l	aquatic invertebrates	24 h
Baseoil - unspecified	64742-65-0	EL50	>10,000 mg/l	aquatic invertebrates	24 h
Baseoil - unspecified	64742-65-0	NOELR	≥1,000 mg/l	fish	14 d
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	EC50	>10,000 mg/l	microorganisms	3 h
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	NOEC	0.4 mg/l	aquatic invertebrates	21 d
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	LOEC	0.8 mg/l	aquatic invertebrates	21 d
C14-16-18 Alkyl phenol	1190625-94-5	EC50	>100 mg/l	aquatic invertebrates	24 h
C14-16-18 Alkyl phenol	1190625-94-5	EL50	>1,000 mg/l	microorganisms	3 h

12.2 Persistence and degradability

Not readily biodegradable.

Degradability of components of the mixture					
Name of substance	CAS No	Process	Degradation rate	Time	Method
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	biotic/abiotic	31 %	28 d	OECD Guideline 301
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	oxygen depletion	31 %	28 d	OECD Guideline 301
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	carbon dioxide generation	4 %	28 d	
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4	carbon dioxide generation	1.5 %	28 d	

12.3 Bioaccumulative potential

Bioaccumulation is not expected.

n-octanol/water (log KOW)	>3
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Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	125643-61-0	38	7.18 (pH value: 6.9, 30 °C)	
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	93819-94-4		≥0.59 – ≤1.2 (pH value: ~7, 23 °C)	
C14-16-18 Alkyl phenol	1190625-94-5		>7.2 (pH value: 7, 35 °C)	

12.4 Mobility in soil

Not miscible with water. Spillages may penetrate the soil causing ground water contamination. This product floats on water and may affect the oxygen-balance in the water.

12.5 Results of PBT and vPvB assessment

Does not contain any substances that are assessed to be PBT or vPvB ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

- | | |
|---|---|
| 14.1 UN number | not subject to transport regulations |
| 14.2 UN proper shipping name | not relevant |
| 14.3 Transport hazard class(es) | none |
| 14.4 Packing group | not assigned |
| 14.5 Environmental hazards | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 Special precautions for user | There is no additional information. |
| 14.7 Maritime transport in bulk according to IMO instruments | No data available. |

Information for each of the UN Model Regulations

International Maritime Dangerous Goods Code (IMDG) - additional information

Not subject to IMDG.

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International Civil Aviation Organization (ICAO-IATA/DGR) - additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant provisions of the European Union (EU)

Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
	not assigned		

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

Water Framework Directive (WFD)

None of the ingredients are listed.

Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013

None of the ingredients are listed.

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

National regulations (GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

none of the ingredients are listed

Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)				
Name of substance	Name acc. to inventory	CAS No	Conditions of restriction	No
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
Baseoil - unspecified	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
Distillates (petroleum), hydrotreated heavy paraffinic	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
C14-16-18 Alkyl phenol	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3

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Dangerous substances with restrictions (GB REACH, Annex 17)

Name of substance	Name acc. to inventory	CAS No	Conditions of restriction	No
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3

Legend

R3

- Shall not be used in:
 - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and jokes,
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
- Articles not complying with paragraph 1 shall not be placed on the market.
- Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
 - can be used as fuel in decorative oil lamps for supply to the general public, and,
 - present an aspiration hazard and are labelled with R65 or H304,
- Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the British Standard Specification on Decorative oil lamps (BS EN 14059) adopted by the British Standards Institute.
- Without prejudice to the implementation of other legislation relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
 - lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010 'Just a sip of lamp oil
 - or even sucking the wick of lamps
 - may lead to life-threatening lung damage';
 - grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life-threatening lung damage';
 - lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
- Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the Agency.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval

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Abbr.	Descriptions of used abbreviations
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GB CLP	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
LOEC	Lowest Observed Effect Concentration
log KOW	n-Octanol/water
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
NOELR	No Observed Effect Loading Rate
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STOT RE	Specific target organ toxicity - repeated exposure

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Abbr.	Descriptions of used abbreviations
UEL	Upper explosion limit (UEL)
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended). The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended). GB mandatory classification and labelling.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
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.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.