



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and
Regulation (EC) No. 1272/2008

Issuing Date 12-Jul-2024

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Revision Number 1

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

1.1. Product identifier

Product Name SAE 10W-60 Synthetic European Motor Oil

Product Code(s) ETS

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Engine oil

Uses advised against Avoid formation of mists

1.3. Details of the supplier of the safety data sheet

Supplier

AMSOIL INC.
One AMSOIL Center
Superior, WI 54880, USA
T: +1 715-392-7101

For further information, please contact

E-mail address compliance@amsoil.com

1.4. Emergency telephone number

Emergency telephone CHEMTREC International: +1 703-741-5970

Emergency telephone - §45 - (EC)1272/2008

Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Chronic aquatic toxicity Category 3 - (H412)

2.2. Label elements

Hazard statements

H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)

P273 - Avoid release to the environment.

P501 - Dispose of contents/ container to an approved waste disposal plant.

68.78 % of the mixture consists of ingredient(s) of unknown acute toxicity.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

Other hazards Causes mild skin irritation. Harmful to aquatic life.

PBT & vPvB None known

Endocrine Disruptor Information Contains a known or suspected endocrine disruptor.

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Phenol, dodecyl-, branched	Endocrine disrupting properties	Endocrine disrupting properties

Chemical name	Endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4)
Phenol, dodecyl-, branched	Endocrine disrupting properties

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Base Oil 72623-87-1	65-70	No data available	276-738-4 (649-483-00-5)	Carc. 1B (H350)	-	-	-
Base oil 64742-65-0	15-20	No data available	265-169-7 (649-474-00-6)	Carc. 1B (*L) (H350)	-	-	-
Base oil 64742-54-7	1-3	No data available	265-157-1 (649-467-00-8)	Carc. 1B (H350) (*L)	-	-	-
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethyl butyl and iso-Pr) esters, zinc salts 84605-29-8	0.5-1.5	No data available	283-392-8	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)	Skin Irrit. 2 :: C>=6.25% Eye Dam. 1 :: C>12.5% Eye Irrit. 2 :: 10%<C<=12.5%	-	-
Base oil 64741-88-4	0.5-1.5	No data available	265-090-8 (649-454-00-7)	Carc. 1B (H350)	-	-	-
Base oil 64742-55-8	0.1-1	No data available	265-158-7 (649-468-00-3)	Carc. 1B (H350)	-	-	-
Base oil 64742-56-9	0.1-1	No data available	265-159-2 (649-469-00-9)	Carc. 1B (H350)	-	-	-
Phenol, dodecyl-, branched 74499-35-7	< 0.1	No data available	(604-092-00-9)	Skin Corr. 1C (H314) Eye Dam. 1 (H318)	-	10	10

				Repr. 1B (H360F) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)			
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Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATE_m) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Base Oil 72623-87-1	5000	2000	2.18	No data available	No data available
Base oil 64742-65-0	15000	5000	2.4	No data available	No data available
Base oil 64742-54-7	15000	5000	No data available	No data available	No data available
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	3100 3200	2000	2.3	No data available	No data available
Base oil 64741-88-4	5000	5000	5.53	No data available	No data available
Base oil 64742-56-9	5000	5000	5.399	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact	Wash skin with soap and water. Take off contaminated clothing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms May cause gastrointestinal discomfort if consumed in large amounts. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation in susceptible persons. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness and difficulty breathing. Prolonged contact may cause redness and irritation.

Effects of Exposure None.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Containers can burst or explode when heated, due to excessive pressure build-up. Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous combustion products Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3. Advice for firefighters

Specific/special fire-fighting measures Fires need to be assessed to determine appropriate protocols and safety measures for firefighting, including establishing safe zones, extinguishing media to be used, firefighter protection, and actions to control or extinguish the fire.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure adequate ventilation. Use personal protective equipment as required. See section 8 for more information.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Clean contaminated surface thoroughly. After

cleaning, flush away traces with water.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections For additional information see: Section 8: Exposure controls/personal protection; Section 12: Ecological information; Section 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with used product. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Wash thoroughly after handling.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Do not reuse empty containers. Store away from incompatible materials. See section 10 for more information.

Storage class (TRGS 510) LGK 10.

7.3. Specific end use(s)

Specific use(s). The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits Under conditions which may generate mists, the following exposure limits are recommended: Long-term exposure limit (8-hour TWA): 5 mg/m³. Short-term exposure limit (15-minute): 10 mg/m³.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Base Oil 72623-87-1	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6] 5.58 mg/m ³ [5] [6]
Base oil 64742-65-0	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6] 5.58 mg/m ³ [5] [6]
Base oil 64742-54-7	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6] 5.58 mg/m ³ [5] [6]
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	-	12.1 mg/kg bw/day [4] [6]	8.31 mg/m ³ [4] [6]
Base oil	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
64741-88-4			5.58 mg/m ³ [5] [6]
Base oil 64742-55-8	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6] 5.58 mg/m ³ [5] [6]
Base oil 64742-56-9	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6] 5.58 mg/m ³ [5] [6]
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	-	11.87 mg/kg bw/day [4] [6]	8.13 mg/m ³ [4] [6]
Base oil 64742-70-7	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6] 5.58 mg/m ³ [5] [6]
Methanol 67-56-1	-	20 mg/kg bw/day [4] [6] 20 mg/kg bw/day [4] [7]	130 mg/m ³ [4] [6] 130 mg/m ³ [4] [7] 130 mg/m ³ [5] [6] 130 mg/m ³ [5] [7]
Ethylbenzene 100-41-4	-	180 mg/kg bw/day [4] [6]	77 mg/m ³ [4] [6] 293 mg/m ³ [5] [7]
Ethane-1,2-diol 107-21-1	-	106 mg/kg bw/day [4] [6]	35 mg/m ³ [5] [6]
Toluene 108-88-3	-	384 mg/kg bw/day [4] [6]	192 mg/m ³ [4] [6] 384 mg/m ³ [4] [7] 192 mg/m ³ [5] [6] 384 mg/m ³ [5] [7]
Naphthalene 91-20-3	-	3.57 mg/kg bw/day [4] [6]	25 mg/m ³ [4] [6] 25 mg/m ³ [5] [6]
Ethylene oxide 75-21-8	-	-	10 mg/m ³ [4] [7]
Propylene oxide 75-56-9	-	-	2.4 mg/m ³ [5] [6] 170 mg/m ³ [5] [7]

Notes

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.
[7]	Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Base Oil 72623-87-1	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
Base oil 64742-65-0	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
Base oil 64742-54-7	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	0.24 mg/kg bw/day [4] [6]	-	2.11 mg/m ³ [4] [6]
Base oil 64741-88-4	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
Base oil 64742-55-8	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
Base oil 64742-56-9	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc	0.24 mg/kg bw/day [4] [6]	-	2.06 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
salts 68457-79-4			
Base oil 64742-70-7	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
Methanol 67-56-1	4 mg/kg bw/day [4] [6] 4 mg/kg bw/day [4] [7]	4 mg/kg bw/day [4] [6] 4 mg/kg bw/day [4] [7]	26 mg/m ³ [4] [6] 26 mg/m ³ [4] [7] 26 mg/m ³ [5] [6] 26 mg/m ³ [5] [7]
Ethylbenzene 100-41-4	1.6 mg/kg bw/day [4] [6]	-	15 mg/m ³ [4] [6]
Ethane-1,2-diol 107-21-1	-	-	7 mg/m ³ [5] [6]
Toluene 108-88-3	8.13 mg/kg bw/day [4] [6]	-	56.5 mg/m ³ [4] [6] 226 mg/m ³ [4] [7] 56.5 mg/m ³ [5] [6] 226 mg/m ³ [5] [7]
Propylene oxide 75-56-9	-	-	0.6 mg/m ³ [5] [6] 170 mg/m ³ [5] [7]

Notes

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.
[7]	Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	4 µg/L	45 µg/L	4.6 µg/L	-	-
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	4 µg/L	45 µg/L	4.6 µg/L	-	-
Methanol 67-56-1	20.8 mg/L	1540 mg/L	2.08 mg/L	-	-
Ethane-1,2-diol 107-21-1	10 mg/L	10 mg/L	1 mg/L	10 mg/L	-
Toluene 108-88-3	0.68 mg/L	0.68 mg/L	0.68 mg/L	-	-
Naphthalene 91-20-3	2.4 µg/L	20 µg/L	2.4 µg/L	-	-
Ethylene oxide 75-21-8	0.084 mg/L	0.84 mg/L	0.0084 mg/L	-	-
Propylene oxide 75-56-9	0.052 mg/L	0.52 mg/L	0.0052 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Base Oil 72623-87-1	-	-	-	-	9.33 mg/kg food
Base oil 64742-65-0	-	-	-	-	9.33 mg/kg food
Base oil 64742-54-7	-	-	-	-	9.33 mg/kg food
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	0.02203 mg/kg sediment dw	0.002203 mg/kg sediment dw	100 mg/L	0.00206 mg/kg soil dw	10.67 mg/kg food
Base oil 64741-88-4	-	-	-	-	9.33 mg/kg food
Base oil 64742-55-8	-	-	-	-	9.33 mg/kg food
Base oil 64742-56-9	-	-	-	-	9.33 mg/kg food
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	0.0244 mg/kg sediment dw	0.00244 mg/kg sediment dw	100 mg/L	0.00249 mg/kg soil dw	10.67 mg/kg food
Base oil 64742-70-7	-	-	-	-	9.33 mg/kg food
Methanol 67-56-1	77 mg/kg sediment dw	7.7 mg/kg sediment dw	100 mg/L	100 mg/kg soil dw	-
Ethane-1,2-diol 107-21-1	37 mg/kg sediment dw	3.7 mg/kg sediment dw	199.5 mg/L	1.53 mg/kg soil dw	-
Toluene 108-88-3	16.39 mg/kg sediment dw	16.39 mg/kg sediment dw	13.61 mg/L	2.89 mg/kg soil dw	-
Naphthalene 91-20-3	67.2 µg/kg sediment dw	67.2 µg/kg sediment dw	2.9 mg/L	53.3 µg/kg soil dw	-
Ethylene oxide 75-21-8	0.329 mg/kg sediment dw	0.0329 mg/kg sediment dw	13 mg/L	0.0165 mg/kg soil dw	-
Propylene oxide 75-56-9	0.245 mg/kg sediment dw	0.0245 mg/kg sediment dw	10 mg/L	0.0186 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

If there is a risk of contact: Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection

If there is a risk of contact: Wear suitable gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

Skin and body protection

If there is a risk of contact: Wear suitable protective clothing. (EN 14058).

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.
Environmental exposure controls	Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		
Physical state	Liquid	
Colour	Amber	
Odour	Characteristic	
Odour threshold	No information available	
Property	Values	Remarks • Method
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point	252 °C	Cleveland Open Cup ASTM D 92
Autoignition temperature		No data available
Decomposition temperature		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity	165.7 cSt @ 40 °C 24.2 cSt @ 100 °C	ASTM D445
Dynamic viscosity		No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Vapour pressure		No data available
Relative density	0.8534	No data available
Bulk density		No data available
Liquid Density		No data available
Relative vapour density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

9.2. Other information

Pour Point	-33 °C [ASTM D 97]
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9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

Fire Point	271 °C (COC)[ASTM D 92]
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	None under normal use conditions.
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10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products Ethers. Miscellaneous decomposition products.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Causes mild skin irritation.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause gastrointestinal discomfort if consumed in large amounts. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation in susceptible persons. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness and difficulty breathing. Prolonged contact may cause redness and irritation.

Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral)	7,269.60 mg/kg
ATEmix (dermal)	2,907.80 mg/kg
ATEmix (inhalation-dust/mist)	8.04 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Base Oil 72623-87-1	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.53 mg/L (Rat) 4 h
Base oil 64742-65-0	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 5530 mg/m ³ (Rat) 4 h
Base oil 64742-54-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 5530 mg/m ³ (Rat) 4 h
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	= 3100 mg/kg (Rat) = 3200 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.3 mg/L (Rat) 4 h
Base oil 64741-88-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5530 mg/m ³ (Rat) 4 h
Base oil 64742-55-8	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 5530 mg/m ³ (Rat) 4 h
Base oil 64742-56-9	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 5399 mg/m ³ (Rat) 4 h
Phenol, dodecyl-, branched 74499-35-7	2200 mg/kg (Rat)	15000 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes mild skin irritation.

Component Information	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
Method	OECD Test No. 404: Acute Dermal Irritation/Corrosion
Species	Rabbit
Exposure route	Dermal
Effective dose	0.5 mL
Exposure time	4 hours
Results	Irritant

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Component Information	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
Species	Rabbit
Exposure route	Eye
Effective dose	0.1 mL
Results	Eye Damage

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity The supplier declares that it can be shown that the substance(s) contain less than 3% DMSO extract as measured by IP 346.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Base Oil	Carc. 1B
Base oil	Carc. 1B
Base oil	Not classified
Base oil	Carc. 1B
Base oil	Carc. 1B
Base oil	Carc. 1B

Reproductive toxicity Based on available data, the classification criteria are not met.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Phenol, dodecyl-, branched	Repr. 1B

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Due to the viscosity, this product does not present an aspiration hazard.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This mixture contains a substance that has endocrine disrupting properties with respect to humans

Chemical name	Endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4)
Phenol, dodecyl-, branched	health effects

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Base Oil 72623-87-1	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Base oil 64742-65-0	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Base oil 64742-54-7	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	-	LC50: =4.5mg/L (96h, Oncorhynchus mykiss)	-	EC50: =23mg/L (48h, Daphnia magna)
Base oil 64741-88-4	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Base oil 64742-55-8	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)

Base oil 64742-56-9	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
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12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential**Bioaccumulation****Component Information**

Chemical name	Partition coefficient
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	0.56

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment Based on available data, the classification criteria are not met.

Chemical name	PBT and vPvB assessment
Base Oil 72623-87-1	The substance is not PBT / vPvB
Base oil 64742-65-0	The substance is not PBT / vPvB
Base oil 64742-54-7	The substance is not PBT / vPvB
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	The substance is not PBT / vPvB
Base oil 64741-88-4	The substance is not PBT / vPvB
Base oil 64742-55-8	The substance is not PBT / vPvB
Base oil 64742-56-9	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties This mixture contains a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
Waste codes / waste designations according to EWC / AVV	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.

SECTION 14: Transport information

IMDG	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available
RID	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
ADR	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
ADN	Not regulated
14.1 UN/ID no	Not regulated
14.2 EPNN	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazard	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
IATA	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
Note:	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Germany**

Water hazard class (WGK) strongly hazardous to water (WGK 3)

Netherlands**Carcinogenic, mutagenic and reproductive toxic effects**

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Phenol, dodecyl-, branched	-	-	Fertility Category 1B

European Union

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.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Base Oil - 72623-87-1	28 75	-
Base oil - 64742-65-0	28 75	-
Base oil - 64742-54-7	28 75	-
Base oil - 64741-88-4	28 75	-
Base oil - 64742-55-8	28 75	-
Base oil - 64742-56-9	28 75	-
Phenol, dodecyl-, branched - 74499-35-7	30 75	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment**Chemical Safety Report**

No information available

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation

H318 - Causes serious eye damage

H350 - May cause cancer

H360F - May damage fertility

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity

ATE: Acute Toxicity Estimate

LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

Ceiling Maximum limit value

SCBA Self-contained breathing apparatus

STEL

Sk*

STEL (Short Term Exposure Limit)

Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	On basis of test data
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Disclaimer

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End of Safety Data Sheet