

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**SRS Motorenöl O-236**

Revision date: 04.10.2024

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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

engine oil

**Uses advised against**

none

**1.3. Details of the supplier of the safety data sheet**

Company name: SRS Schmierstoff Vertrieb GmbH  
Street: Neuenkirchener Straße 8  
Place: D-48497 Salzbergen  
Telephone: 05976 - 945-0  
Responsible Department: Abt. Produktsicherheit: info.reach@srs-oil.de  
**1.4. Emergency telephone number:** Gift-Informationszentrum Nord (Göttingen) - Telefon 0551-19240

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

**2.2. Label elements****Regulation (EC) No 1272/2008****Special labelling of certain mixtures**

EUH208 Contains Dihydro-3-(tetrapropenyl)furan-2,5-dione, maleic anhydride. May produce an allergic reaction.  
EUH210 Safety data sheet available on request.

**2.3. Other hazards**

This mixture contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.  
For information or further instructions, see also section 11 or 12.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**



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## Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
	Mineral Oil* (64742-54-7, 64742-65-0, 64742-55-8, 64742-56-9)			5 - < 7 %
	Asp. Tox. 1; H304			
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified			3 - < 5 %
	265-158-7	649-468-00-3	01-2119487077-29	
	Asp. Tox. 1; H304			
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts			1 - < 3 %
	283-392-8		01-2119493626-26	
	Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 2; H315 H318 H411			
	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts			0.5 - < 1 %
	947-519-7		01-2120765489-36	
	Skin Sens. 1B; H317			
27859-58-1	(tetrapropenyl)succinic acid			0.3 - < 0.5 %
	248-698-8		01-2120752504-57	
	Repr. 2, Skin Irrit. 2, Eye Dam. 1, STOT RE 2; H361d H315 H318 H373			
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione			< 0.1 %
	247-781-6			
	Eye Irrit. 2, Skin Sens. 1A, Aquatic Chronic 4; H319 H317 H413			
108-31-6	maleic anhydride			< 0.001 %
	203-571-6	607-096-00-9	01-2119472428-31	
	Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Resp. Sens. 1, Skin Sens. 1A, STOT RE 1; H302 H314 H318 H334 H317 H372 EUH071			

Full text of H and EUH statements: see section 16.

## Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
64742-55-8	265-158-7	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified	3 - < 5 %
	inhalation: LC50 = > 5,53 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
84605-29-8	283-392-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts	1 - < 3 %
	dermal: LD50 = >2000 mg/kg; oral: LD50 = 3100 mg/kg Skin Irrit. 2; H315: >= 6,25 - 100 Eye Dam. 1; H318: >= 12,5 - 100 Eye Irrit. 2; H319: >= 10 - < 12,5		
	947-519-7	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	0.5 - < 1 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 10000 - < 20000 mg/kg Skin Sens. 1B; H317: >= 10 - 100		
27859-58-1	248-698-8	(tetrapropenyl)succinic acid	0.3 - < 0.5 %
	oral: LD50 = 2100 mg/kg		
26544-38-7	247-781-6	Dihydro-3-(tetrapropenyl)furan-2,5-dione	< 0.1 %
	inhalation: LC50 = 5,9 mg/l (dusts or mists); dermal: LD50 = LD100 = 6200-7500 mg/kg; oral: LD50 = 2900 mg/kg		
108-31-6	203-571-6	maleic anhydride	< 0.001 %
	dermal: LD50 = 2620 mg/kg; oral: LD50 = 1090 mg/kg Skin Sens. 1A; H317: >= 0,001 - 100		

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**Further Information**

Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London).

\*The mineral oil can be described by one or more EINECS numbers. 265-157-1, 265-169-7, 265-158-7, 265-159-2, (REACH-no.: 01-2119484627-25, 01-2119471299-27, 01-2119487077-29, 01-2119480132-48)

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**After inhalation**

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. In case of skin irritation, seek medical treatment.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

If swallowed or in the event of vomiting, risk of entering the lungs.

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

Treat symptomatically.

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

Sand. Foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder. In case of major fire and large quantities: Water spray jet. Water mist.

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Burning produces heavy smoke.

In case of fire may be liberated: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>) Sulphur dioxide (SO<sub>2</sub>)

Phosphorus oxides

**5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Co-ordinate fire-fighting measures to the fire surroundings.

**SECTION 6: Accidental release measures**

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**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Ventilate affected area.

Special danger of slipping by leaking/spilling product.

**For non-emergency personnel**

Wear personal protection equipment (refer to section 8).

**For emergency responders**

No special precautionary measures are necessary.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into soil/subsoil.

**6.3. Methods and material for containment and cleaning up****For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**6.4. Reference to other sections**

No information available.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Wear suitable protective clothing. ( See section 8. )

Avoid formation of oil dust.

**Advice on protection against fire and explosion**

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

Fire class B

**Advice on general occupational hygiene**

Clean skin thoroughly after working.

Do not put any product-impregnated cleaning rags into your trouser pockets.

Contaminated work clothing should not be allowed out of the workplace.

Wash contaminated clothing before reuse.

**Further information on handling**

Do not breathe vapour/aerosol.

Avoid contact with eyes and skin.

General protection and hygiene measures: See section 8.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Only use containers specifically approved for the substance/product.

**Hints on joint storage**

Do not store together with: Gas. Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances.

Infectious substances

**Further information on storage conditions**

Temperature control required. Protect from light. Keep container tightly closed. Do not allow contact with air.

**7.3. Specific end use(s)**

See section 1.

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**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****DNEL/DMEL values**

CAS No	Name of agent	Exposure route	Effect	Value
DNEL type				
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified			
Worker DNEL, long-term	inhalation	systemic		2,73 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local		5,58 mg/m <sup>3</sup>
Consumer DNEL, long-term	oral	systemic		0,74 mg/kg bw/day
Worker DNEL, long-term	dermal	systemic		0,97 mg/kg bw/day
Consumer DNEL, long-term	inhalation	local		1,19 mg/m <sup>3</sup>
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts			
Worker DNEL, long-term	inhalation	systemic		8,31 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic		12,1 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic		2,11 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic		6,1 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic		0,24 mg/kg bw/day
	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts			
Worker DNEL, long-term	inhalation	systemic		17,63 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic		25 mg/kg bw/day
Worker DNEL, long-term	dermal	local		1,05 mg/cm <sup>2</sup>
Consumer DNEL, long-term	inhalation	systemic		4,35 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic		12,5 mg/kg bw/day
Consumer DNEL, long-term	dermal	local		0,526 mg/cm <sup>2</sup>
Consumer DNEL, long-term	oral	systemic		2,5 mg/kg bw/day
27859-58-1	(tetrapropenyl)succinic acid			
Worker DNEL, long-term	inhalation	systemic		1,2 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic		0,7 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic		0,3 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic		0,3 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic		0,2 mg/kg bw/day
108-31-6	maleic anhydride			
Worker DNEL, long-term	inhalation	systemic		0,081 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	systemic		0,2 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	local		0,081 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	local		0,2 mg/m <sup>3</sup>

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**PNEC values**

CAS No	Name of agent	
Environmental compartment		Value
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified	
Secondary poisoning		9,33 mg/kg
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts	
Freshwater		0,004 mg/l
Freshwater (intermittent releases)		0,045 mg/l
Marine water		0,0046
Freshwater sediment		0,022 mg/kg
Marine sediment		0,002 mg/kg
Secondary poisoning		10,67 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		0,002 mg/kg
Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts		
Freshwater		0,1 mg/l
Freshwater (intermittent releases)		1 mg/l
Marine water		0,1 mg/l
Freshwater sediment		166,32 mg/kg
Marine sediment		166,32 mg/kg
Micro-organisms in sewage treatment plants (STP)		1000 mg/l
Soil		33,12 mg/kg
27859-58-1	(tetrapropenyl)succinic acid	
Freshwater		0,1 mg/l
Freshwater (intermittent releases)		1 mg/l
Marine water		0,01 mg/l
Freshwater sediment		62,1 mg/kg
Marine sediment		6,21 mg/kg
Secondary poisoning		3,33 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		12,4 mg/kg
108-31-6	maleic anhydride	
Freshwater		0,038 mg/l
Freshwater (intermittent releases)		0,379 mg/l
Marine water		0,004 mg/l
Freshwater sediment		0,296 mg/kg
Marine sediment		0,03 mg/kg
Micro-organisms in sewage treatment plants (STP)		44,6 mg/l
Soil		0,037 mg/kg

**Additional advice on limit values**

Air limit values:

Possibility of exposure to Aerosol (Mineral oil )

Limit value (TLV-TWA ) = 5 mg/ m3 - Source: ACGIH

Limit value (TLV-STEL ) = 10 mg/ m3 - Source: ACGIH

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STEL: short-term exposure limits  
TLV: Threshold Limiting Value  
TWA: time weighted average  
ACGIH: American Conference of Governmental Industrial Hygienists

#### 8.2. Exposure controls



##### Appropriate engineering controls

Provide adequate ventilation.

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Safety goggles with side protection. In case of increased risk add protective face shield. EN 166

##### Hand protection

Use safety gloves of following materials: NBR (nitrile) / neopren / viton (permeationslevel 5 - 6), Cat. II according to norm EN 374/EN 388.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

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.

Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

##### Skin protection

Oil-resistant and hardly inflammable protective clothing.

##### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-aerosol or mist formation

-Exceeding exposure limit values

Suitable respiratory protection apparatus: Respiratory equipment in case of nebulosity or aerosol: Use a mask with a filter type A2, A2/P2 or ABEK.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

##### Thermal hazards

Wear protective clothing for operations with hot material: heat resistant coveralls (with trousers legs over boots and sleeves over cuffs of gloves), heat resistant heavy duty antiskid boots (e. g. leather).

##### Environmental exposure controls

No information available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	clear
Odour:	characteristic

#### Test method

Melting point/freezing point:	No information available.
Boiling point or initial boiling point and boiling range:	No information available.

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Flammability:	No information available.
Lower explosion limits:	No information available.
Upper explosion limits:	No information available.
Flash point:	236 °C COC
Auto-ignition temperature:	No information available.
Decomposition temperature:	No information available.
pH-Value:	No information available.
Viscosity / kinematic: (at 40 °C)	113,8 mm <sup>2</sup> /s DIN EN ISO 3104
Water solubility:	Immiscible
Solubility in other solvents	
No information available.	
Partition coefficient n-octanol/water:	No information available.
Vapour pressure:	No information available.
(at 20 °C)	
Vapour pressure:	No information available.
(at 50 °C)	
Density (at 15 °C):	0,885 g/cm <sup>3</sup> DIN 51757
Bulk density:	No information available.
Relative vapour density:	No information available.
Particle characteristics:	No information available.

**9.2. Other information****Information with regard to physical hazard classes**

Explosive properties

none

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

No information available.

Gas:

No information available.

Oxidizing properties

none

**Other safety characteristics**

Evaporation rate:

No information available.

Solvent separation test:

No information available.

Solvent content:

No information available.

Solid content:

No information available.

Sublimation point:

No information available.

Softening point:

No information available.

Pour point:

-36 °C

Viscosity / dynamic:

No information available.

Flow time:

No information available.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No information available.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

No hazardous reactions known.

Refer to chapter 10.5.





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#### **10.4. Conditions to avoid**

No information available.

#### **10.5. Incompatible materials**

Oxidising agent, strong

#### **10.6. Hazardous decomposition products**

No known hazardous decomposition products.

### **SECTION 11: Toxicological information**

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

##### **Toxicokinetics, metabolism and distribution**

No information available.

##### **Acute toxicity**

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

##### **ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified				
	oral	LD50 > 5000 mg/kg	Rat	ECHA Dossier	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	ECHA Dossier	OECD Guideline 402
	inhalation (4 h) dust/mist	LC50 > 5,53 mg/l	Rat	ECHA Dossier	OECD Guideline 403
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts				
	oral	LD50 3100 mg/kg	Rat	ECHA Dossier	OECD 401
	dermal	LD50 >2000 mg/kg	Rabbit	ECHA Dossier	OECD 402
	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts				
	oral	LD50 > 10000 - < 20000 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 > 2000 mg/kg	Rat	ECHA Dossier	OECD Guideline 402
27859-58-1	(tetrapropenyl)succinic acid				
	oral	LD50 2100 mg/kg	Rat	ECHA Dossier	OECD Guideline 401
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione				
	oral	LD50 2900 mg/kg	Rat.	ECHA Dossier	OECD Guideline 423
	dermal	LD50 LD100 = 6200-7500 mg/kg	Rabbit	ECHA Dossier	
	inhalation (4 h) dust/mist	LC50 5,9 mg/l	Rat.	ECHA Dossier	
108-31-6	maleic anhydride				
	oral	LD50 1090 mg/kg	Rat	SIDS Initial Assessment Report for SIAM	OECD Guideline 401
	dermal	LD50 2620 mg/kg	Rabbit	Toxicol. Appl. Pharmacol. 42, 417-424 (1	Smyth et al.

### Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

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

Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts

Specific concentration limit (SCL)

>=6,25% (Skin Irrit. 2)

> 12,5 % (Eye Dam. 1)

> 10% (Eye Irrit. 2)

### Sensitising effects

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

Contains Dihydro-3-(tetrapropenyl)furan-2,5-dione, maleic anhydride. May produce an allergic reaction.

May cause sensitisation especially in sensitive humans.

### Carcinogenic/mutagenic/toxic effects for reproduction

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

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

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

Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified:

In vitro mutagenicity/genotoxicity:

Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay) with modifications

Results: negative / positive

Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Results: negative

Method: OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Results: negative / positive

Literature information: REACH Dossier

In vivo mutagenicity/genotoxicity

Method: OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Results: negative ; Literature information: REACH Dossier

Reproductive toxicity

Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Exposure time: 28d; Species: Rat

Results: NOAEL = > 2000 mg/kg(bw)/day; Literature information: REACH Dossier

Developmental toxicity/teratogenicity:

Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Exposure time: 28d; Species: Rat

Results: NOAEL = > 2000 mg/kg(bw)/day; Literature information: REACH Dossier

Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts:

In vitro mutagenicity/genotoxicity:

Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Result: negative

Literature information: REACH Dossier

In vivo mutagenicity/genotoxicity:

Method: OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Species: Mouse.

Results: negative

Literature information: REACH Dossier

Developmental toxicity/teratogenicity/Reproductive toxicity:

Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction

/Developmental Toxicity Screening Test)

Species: Rat

Results: NOAEL > 160 mg/kg

Literature information: REACH Dossier

Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts:

In-vitro mutagenicity:

Method:

-OECD Guideline 471 (Bacterial Reverse Mutation Assay)

-OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

-OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test)

Result: negative

Literature information: REACH Dossier

Reproductive toxicity:

Method: OECD Guideline 415 (One-Generation Reproduction Toxicity Study)

Species: Rat

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Result: NOAEL (F1, P0) > 500 mg/kg  
Literature information: REACH Dossier

maleic anhydride:  
In-vitro mutagenicity:  
Method:  
-OECD Guideline 471 (Bacterial Reverse Mutation Assay)  
-OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test)  
Result: negative  
Literature information: REACH Dossier

In-vitro mutagenicity:  
Method: EU Method B.18  
Result: negative  
Literature information: REACH Dossier

Reproductive toxicity:  
Method: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)  
Species: Rat  
Result: NOAEL (P0, P1) = 55 mg/kg; NOAEL (F1) = 55 mg/kg  
Literature information: REACH Dossier

Developmental toxicity/teratogenicity:  
Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study)  
Species: Rat  
Result: NOAEL (fetus) >= 140 mg/kg  
Result: NOAEL (Maternal toxicity) >= 140 mg/kg  
Literature information: REACH Dossier

(tetrapropenyl)succinic acid:  
Subacute oral toxicity:  
Method: -  
Species: Rat  
Exposure duration: 28 d  
Results: LOAEL = 1000 mg/kg  
Literature information: REACH Dossier

(tetrapropenyl)succinic acid:  
In-vitro mutagenicity:  
Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay)  
Result: negative  
Literature information: REACH Dossier

Reproductive toxicity:  
Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)  
Species: Rat  
Result: NOAEL (P0) = 50 mg/kg; Result: NOAEL (F1) = 250 mg/kg (READ ACROSS, CAS 92077-08-2)  
Literature information: REACH Dossier

**STOT-single exposure**

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

**STOT-repeated exposure**

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

Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified:

Subacute inhalative toxicity : Method: -; Exposure time: 28d; Species: Rat; Results: NOAEL > 980 mg/m<sup>3</sup>;

Literature information: J Appl Toxicol, Vol 11(4), pp 297-302; Subacute dermal toxicity: Method: OECD

Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study); Exposure time: 28d; Species: Rabbit;

Results: NOAEL 1000 mg/kg(bw)/day; Literature information: REACH Dossier; Subchronic oral toxicity:

Method: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents); Species: Rat; Results:

NOAEL = 125 mg/kg; Literature information: REACH Dossier

Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts:

Subchronic oral toxicity:

Species: Rat

Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction /

Developmental Toxicity Screening Test)

Result: NOAEL = 160 mg/kg (READ-ACROSS)

Literature information: REACH Dossier

Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts:

Subchronic inhalative toxicity:

Method: OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28d)

Species: Rat

Results: NOAEC = 50 mg/m<sup>3</sup> (WoE, CAS: 61789-86-4)

Literature information: REACH Dossier

Subacute dermal toxicity

Method: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Species: Rat

Results: NOAEL > 1000 mg/kg (WoE, CAS: 61789-86-4)

Literature information: REACH Dossier

maleic anhydride:

Subchronic oral toxicity:

Method: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents).

Species: Rat.

Result: LOAEL= 250 mg/kg.

Literature information: REACH Dossier

**Aspiration hazard**

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

**11.2. Information on other hazards****Endocrine disrupting properties**

This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**Other information**

Frequent contact specially if dried out may cause skin and eye irritations.

**SECTION 12: Ecological information****12.1. Toxicity**

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

If this product contains phenol, dodecyl, branched (EC No. 310-154-3), this product is not to be classified as dangerous for the environment. Raw materials containing this substance have not been classified by our suppliers as hazardous to the environment on the basis of test data, expert judgement or analogy assessments.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified					
	Acute fish toxicity	LC50 LL50 > 100 mg/l	96 h	Pimephales promelas (fathead minnow)	ECHA Dossier	OECD Guideline 203
	Acute crustacea toxicity	EC50 EL50 > 10000 mg/l	48 h	Daphnia magna (Big water flea)	ECHA Dossier	OECD Guideline 202
	Algae toxicity	NOEC NOEL > 100 mg/l	3 d	Pseudokirchneriella subcapitata	ECHA Dossier	
	Crustacea toxicity	NOEC NOEL > 10 mg/l	21 d	Daphnia magna (Big water flea)	ECHA Dossier	OECD Guideline 211
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts					
	Acute fish toxicity	LC50 LL50: 4,5 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	OECD 203
	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts					
	Acute fish toxicity	LL50 > 100 mg/l	96 h	Oncorhynchus mykiss	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Desmodesmus subspicatus	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EL50 > 100 mg/l	48 h	Daphnia magna	ECHA Dossier	OECD Guideline 202
	Acute bacteria toxicity	EC50 > 10000 mg/l ( )	3 h	activated sludge of a predominantly domestic sewage	ECHA Dossier	OECD Guideline 209
27859-58-1	(tetrapropenyl)succinic acid					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 100 mg/l	96 h	Pseudokirchneriella subcapitata	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	ECHA Dossier	OECD Guideline 202
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 110 mg/l	96 h	Pseudokirchneriella subcapitata	ECHA Dossier	Internal T.R. Wilbury Test Lab Protocol
	Acute bacteria toxicity	EC50 800 mg/l ( )	3 h	activated sludge, domestic	ECHA Dossier	OECD Guideline 209
108-31-6	maleic anhydride					
	Acute algae toxicity	ErC50 74,35 mg/l	72 h	Pseudokirchneriella subcapitata	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 42,81 mg/l	48 h	Daphnia magna	ECHA Dossier	OECD Guideline 202

**12.2. Persistence and degradability**

The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified			
	OECD Guideline 301 F	31%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	1,5 %	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts			
	OECD Guideline 301 D	8%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
27859-58-1	(tetrapropenyl)succinic acid			
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	18,3 %	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione			
	OECD Guideline 301 D	< 10%	28	ECHA Dossier
	Not readily biodegradable (according to OECD criteria)			
108-31-6	maleic anhydride			
	OECD Guideline 301 B	>90%	28	ECHA Dossier
	Readily biodegradable (according to OECD criteria).			

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified	> 3,5
84605-29-8	Phosphorodithionic acid, mixed O,O-bis (1,3-dimethylbutyl and iso-Pr)esters, zinc salts	0,56
	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	>= 5,38
27859-58-1	(tetrapropenyl)succinic acid	>= 3,286
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione	>= 4,39
108-31-6	maleic anhydride	-2,61

**BCF**

CAS No	Chemical name	BCF	Species	Source
	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	27600	Fish	ECHA Dossier

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**12.7. Other adverse effects**

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No information available.

**Further information**

Ozone depletion potential (ODP): No information available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Informations for safe handling see chapter 7.

Informations for personal protective equipment see chapter 8.

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

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



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**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

Directive 2010/75/EU on industrial emissions: No information available.

Directive 2004/42/EC on VOC in paints and varnishes: No information available.

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

This mixture is classified as not hazardous according to Regulation (EC) 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No (mixture): not relevant

Observe in addition any national regulations!

**National regulatory information**

Water hazard class (D): 2 - obviously hazardous to water

**Additional information**

Regulation (EU) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals: not relevant

15.2 Chemical Safety Assessment  
not applicable.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 11,12,15,16.

Rev.: 1,0 - 15.08.2018

Rev.: 2,0 - 19.06.2019

Rev.: 3,0 - 25.06.2020; Changes in chapter: 2.2, 3.2, 11.1, 12.1, 12.2, 16

Rev.: 4,0 - 02.06.2021; Changes in chapter: 3.2, 6.1, 6.3, 11.1, 11.2, 12.1, 12.2, 12.3, 12.6, 12.7, 15.1,16

Rev.: 5,0 - 13.06.2022; Changes in chapter: Changes in chapter: 2.3, 3.2, 8.1, 8.2, 11.1, 11.2, 12.1, 12.2, 12.3, 12.6, 12.7,16

Rev.: 5,1 - 09.03.2023, Changes in chapter: 2.2, 3.2, 9.1,11.1, 12.1, 12.2, 12.3, 16

Rev.: 5,2 - 16.10.2023, Changes in chapter: 2.2, 3.2, 8.1, 9.1, 11.1, 11.2, 12.1, 12.2, 12.3, 12.7, 16

Rev.: 6,0 - 04.10.2024, Changes in chapter: 11.1, 12.1, 16

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**Abbreviations and acronyms**

Acute Tox: Acute toxicity  
Asp. Tox: Aspiration hazard  
Skin Corr: Skin corrosion  
Skin Irrit: Skin irritation  
Eye Dam: Eye damage  
Eye Irrit: Eye irritation  
Resp. Sens: Respiratory sensitisation  
Skin Sens: Skin sensitisation  
Repr: Reproductive toxicity  
STOT RE: Specific target organ toxicity - repeated exposure  
Aquatic Chronic: Chronic aquatic hazard  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
CAS: Chemical Abstracts Service  
CLP: Classification, Labelling and Packaging of substances and mixtures  
d: day(s)  
DNEL: Derived No Effect Level  
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
ECHA: European Chemicals Agency  
EWC: European Waste Catalogue  
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
h: hour  
LOAEL: Lowest observed adverse effect level  
LOAEC: Lowest observed adverse effect concentration  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NOAEL: No observed adverse effect level  
NOAEC: No observed adverse effect concentration  
NLP: No-Longer Polymers  
NTP: National Toxicology Program  
N/A: not applicable  
OECD: Organisation for Economic Co-operation and Development  
PNEC: predicted no effect concentration  
PBT: Persistent bioaccumulative toxic  
PMT: Persistent, mobile and toxic  
REACH: Registration, Evaluation, Authorisation of Chemicals  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )  
SVHC: substance of very high concern  
TRGS: Technische Regeln für Gefahrstoffe  
UN: United Nations  
TSCA: Toxic Substances Control Act  
vPvM: very persistent and very mobile  
vPvB: very persistent and very bioaccumulative  
VOC: Volatile Organic Compounds  
WGK: Water Hazard Class (Germany)

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**Key literature references and sources for data**

<https://echa.europa.eu/>  
<https://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp>  
<https://cfpub.epa.gov/ecotox/search.cfm>  
<http://www.inchem.org/#/search>  
<https://pubchem.ncbi.nlm.nih.gov/>  
<http://ccinfoweb.ccohs.ca/rtecs/search.html>  
<https://webigoletto.uba.de/rigoletto/>

**Relevant H and EUH statements (number and full text)**

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH071	Corrosive to the respiratory tract.
EUH208	Contains Dihydro-3-(tetrapropenyl)furan-2,5-dione, maleic anhydride. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

**Further Information**

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*