Safety Data Sheet

according to Regulation (EC) No 1907/2006

SRS Leichtlauf-Motorenöl O-1178 / QB-B-0443

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

1.1. Product identifier

SRS Leichtlauf-Motorenöl O-1178 / QB-B-0443

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

Use of the substance/mixture

engine oil

Uses advised against

No information available.

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

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container to local/regional/national/international regulations.

Special labelling

EUH208 Contains 2-tetradecyloxirane, reaction products with boric acid, triphenyl phosphite, methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate. May produce an allergic reaction.

2.3. Other hazards

For information or further instructions, see also section 11 or 12.

phenol, dodecyl-, branched: This substance has been listed as SVHC (substance of very high concern) in the Candidate List according to Article 59 of REACH.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			

64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified			35 - < 40 %
	265-157-1	649-467-00-8	01-2119484627-25	
	Asp. Tox. 1; H304			
157707-86-3	Dec-1-ene, trimers, hydrogenated			30 - < 35 %
	500-393-3		01-2119493949-12	
	Asp. Tox. 1; H304			
	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			5 - < 7 %
	265-158-7	649-468-00-3	01-2119487077-29	
	Asp. Tox. 1; H304			
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)			1 - < 3 %
	224-235-5		01-2119493635-27	
	Eye Dam. 1, Aquatic Chronic 2; H318 H411			
	Calcium branched alkyl phenate sulphide			1 - < 3 %
	Aquatic Chronic 4; H413			
	2-tetradecyloxirane, reaction products with boric acid			0.5 - < 1 %
	701-392-2		01-2119976364-28	
	Skin Sens. 1B; H317			
75975-85-8	Benzene, polypropene derivatives, sulfonated, calcium salts			0.5 - < 1 %
	Skin Sens. 1B; H317			
27859-58-1	(tetrapropenyl)succinic acid			0.1 - < 0.2 %
	248-698-8		01-2120752504-57	
	Repr. 2, Skin Corr. 1C, Eye Dam. 1, STOT RE 2; H361d H314 H318 H373			
101-02-0	triphenyl phosphite			0.1 - < 0.2 %
	202-908-4	015-105-00-7	01-2119511213-58	
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H302 H315 H319 H317 H373 H400 H410			
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate**			0.1 - < 0.2 %
	201-297-1	607-035-00-6		
	Flam. Liq. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3; H225 H315 H317 H335			
121158-58-5	phenol, dodecyl-, branched			< 0.1 %
	310-154-3	604-092-00-9	01-2119513207-49	
	Repr. 1B, Skin Corr. 1C, Eye Dam. 1, ED HH 1, Aquatic Acute 1, Aquatic Chronic 1, ED ENV 1; H360F H314 H318 EUH380 H400 H410 EUH430			

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		
64742-54-7	265-157-1	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified	35 - < 40 %
	dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg		
157707-86-3	500-393-3	Dec-1-ene, trimers, hydrogenated	30 - < 35 %
	inhalation: LC50 = >5,2 mg/l (dusts or mists); dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg		
64742-55-8	265-158-7	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified	5 - < 7 %

	inhalation: LC50 = > 5,53 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
4259-15-8	224-235-5	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	1 - < 3 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = 3100 mg/kg Eye Dam. 1; H318: >= 80 - 100 Eye Irrit. 2; H319: >= 50 - < 80		
	701-392-2	2-tetradecyloxirane, reaction products with boric acid	0.5 - < 1 %
	dermal: LD50 = >2000 mg/kg; oral: LD50 = >16000 mg/kg		
75975-85-8		Benzene, polypropene derivatives, sulfonated, calcium salts	0.5 - < 1 %
	Skin Sens. 1B; H317: >= 10 - 100		
27859-58-1	248-698-8	(tetrapropenyl)succinic acid	0.1 - < 0.2 %
	oral: LD50 = 2100 mg/kg		
101-02-0	202-908-4	triphenyl phosphite	0.1 - < 0.2 %
	inhalation: LC50 = >6,7 mg/l (dusts or mists); dermal: LD50 = >2000<5000 mg/kg; oral: ATE = 500 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100		
80-62-6	201-297-1	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate**	0.1 - < 0.2 %
	inhalation: LC50 = 29,8 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg; oral: LD50 = 8400 mg/kg		
121158-58-5	310-154-3	phenol, dodecyl-, branched	< 0.1 %
	dermal: LD50 = 15000 mg/kg; oral: LD50 = 2100 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10		

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).

**Substance for which a community occupational exposure limit value applies in the European Union.

*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 (CO2). 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 (CO2) Sulphur dioxide (SO2) Nitrogen oxides (NOx)

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

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 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. If required, notify relevant authorities according to all applicable regulations.

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).

For cleaning up

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

CAS No	Name of agent	ppm	mg/m³	fib/cm³	Category	Origin
80-62-6	Methyl methacrylate	50 100	- -		TWA (8 h) STEL (15 min)	

DNEL/DMEL values

CAS No	Name of agent			
DNEL type		Exposure route	Effect	Value
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified			
Worker DNEL, long-term		inhalation	systemic	2,73 mg/m³
Worker DNEL, long-term		inhalation	local	5,58 mg/m³
Worker DNEL, long-term		dermal	systemic	0,97 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	1,19 mg/m³
Consumer DNEL, long-term		oral	systemic	0,74 mg/kg bw/day
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified			
Worker DNEL, long-term		inhalation	systemic	2,73 mg/m³
Worker DNEL, long-term		inhalation	local	5,58 mg/m³

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/m³
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)		
Worker DNEL, long-term	inhalation	systemic	6,6 mg/m³
Worker DNEL, long-term	dermal	systemic	9,6 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,67 mg/m³
Consumer DNEL, long-term	dermal	systemic	4,8 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,19 mg/kg bw/day
	2-tetradecyloxirane, reaction products with boric acid		
Worker DNEL, long-term	dermal	local	0,09 mg/cm²
Consumer DNEL, long-term	dermal	local	4,68 mg/cm²
27859-58-1	(tetrapropenyl)succinic acid		
Worker DNEL, long-term	inhalation	systemic	1,76 mg/m³
Worker DNEL, long-term	dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,43 mg/m³
Consumer DNEL, long-term	dermal	systemic	0,25 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,25 mg/kg bw/day
101-02-0	triphenyl phosphite		
Worker DNEL, long-term	inhalation	systemic	0,53 mg/m³
Worker DNEL, long-term	dermal	systemic	0,15 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,53 mg/m³
Consumer DNEL, long-term	dermal	systemic	0,15 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,075 mg/kg bw/day
121158-58-5	phenol, dodecyl-, branched		
Worker DNEL, acute	inhalation	systemic	44,18 mg/m³
Worker DNEL, acute	dermal	systemic	166 mg/kg bw/day
Consumer DNEL, acute	inhalation	systemic	13,26 mg/m³
Consumer DNEL, acute	dermal	systemic	50 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	1,26 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	1.762 mg/m³
Worker DNEL, long-term	dermal	systemic	0,25 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,79 mg/m³
Consumer DNEL, long-term	dermal	systemic	0,075 mg/kg bw/day

Consumer DNEL, long-term	oral	systemic	0,075 mg/kg bw/day

PNEC values

CAS No	Name of agent
Environmental compartment	Value
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified
Secondary poisoning	9,33 mg/kg
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified
Secondary poisoning	9,33 mg/kg
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)
Freshwater	0,004 mg/l
Freshwater (intermittent releases)	0,044 mg/l
Marine water	0,0046 mg/l
Freshwater sediment	0,322 mg/l
Secondary poisoning	8,33 mg/kg
Microorganisms in sewage treatment plants (STP)	0,038 mg/l
Soil	0,062 mg/kg
	2-tetradecyloxirane, reaction products with boric acid
Freshwater	1 mg/l
Marine water	0,1 mg/l
Freshwater sediment	42700 mg/kg
Marine sediment	4270 mg/kg
Microorganisms in sewage treatment plants (STP)	100 mg/l
Soil	8540 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
Microorganisms in sewage treatment plants (STP)	100 mg/l
Soil	12,4 mg/kg
121158-58-5	phenol, dodecyl-, branched
Freshwater	0,000074 mg/l
Freshwater (intermittent releases)	0,00037 mg/l
Marine water	0,000007 mg/l
Freshwater sediment	0,226 mg/kg
Marine sediment	0,027 mg/kg
Secondary poisoning	4 mg/kg
Microorganisms in sewage treatment plants (STP)	100 mg/l
Soil	0,118 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

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.

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.	
Flammability:	No information available.	
Lower explosion limits:	No information available.	
Upper explosion limits:	No information available.	
Flash point:	237 °C	DIN ISO 2592
Auto-ignition temperature:	No information available.	
Decomposition temperature:	No information available.	
pH-Value:	No information available.	
Viscosity / kinematic: (at 40 °C)	53,96 mm²/s	DIN EN ISO 3104
Water solubility:	No information available.	

Solubility in other solvents

No information available.

Partition coefficient n-octanol/water:	No information available.	
Vapour pressure: (at 20 °C)	<0,1 hPa	calculated.
Vapour pressure: (at 50 °C)	No information available.	
Density (at 15 °C):	0,8597 g/cm³	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

Sustained combustibility:	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:	-51 °C	ISO 3016
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 mixture 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.

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

Toxicocinetics, 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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified				
	oral	LD50 >5000 mg/kg	Rat	ECHA Dossier	OECD 401
	dermal	LD50 >2000 mg/kg	Rabbit	ECHA Dossier	OECD 402
157707-86-3	Dec-1-ene, trimers, hydrogenated				
	oral	LD50 >5000 mg/kg	Rat.	ECHA Dossier	
	dermal	LD50 >2000 mg/kg	Rat.	ECHA Dossier	
	inhalation (4 h) dust/mist	LC50 >5,2 mg/l	Rat.	ECHA Dossier	OECD 403
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
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)				
	oral	LD50 3100 mg/kg	Rat.	ECHA Dossier	OECD Guideline 401
	dermal	LD50 > 5000 mg/kg	Rabbit.	ECHA Dossier	OECD Guideline 402
	2-tetradecyloxirane, reaction products with boric acid				
	oral	LD50 >16000 mg/kg	Rat	ECHA Dossier	

	dermal	LD50 >2000 mg/kg	Rabbit	ECHA Dossier	
27859-58-1	(tetrapropenyl)succinic acid				
	oral	LD50 2100 mg/kg	Rat	ECHA Dossier	OECD Guideline 401
101-02-0	triphenyl phosphite				
	oral	ATE 500 mg/kg			
	dermal	LD50 >2000<5000 mg/kg	Rabbit	REACH Dossier	OECD 402
	inhalation (1 h) dust/mist	LC50 >6,7 mg/l	Rat	REACH Dossier	OECD 403
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate**				
	oral	LD50 8400 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit	ECHA Dossier	
	inhalation (4 h) dust/mist	LC50 29,8 mg/l	Rat	ECHA Dossier	
121158-58-5	phenol, dodecyl-, branched				
	oral	LD50 2100 mg/kg	Rat	ECHA Dossier	OECD 401
	dermal	LD50 15000 mg/kg	Rabbit	ECHA Dossier	OECD 402

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.
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
Eye Dam. 1: SCL > 50%
Eye Irrit. 2: SCL > 50% (Source: Manufacturer)

Sensitising effects

Based on available data, the classification criteria are not met.
Contains 2-tetradecyloxirane, reaction products with boric acid, triphenyl phosphite, methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate. May produce an allergic reaction.
May cause sensitisation especially in sensitive humans.

Carcinogenic/mutagenic/toxic effects for reproduction

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 heavy paraffinic; Baseoil - unspecified:
In vitro mutagenicity/genotoxicity Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test); Result: negative Literature information: REACH Dossier; Carcinogenicity: Method: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies); Species: Mouse.; Results: Non-carcinogenic if DMSO extract as measured by IP346 is less than 3% m/m. Literature information: REACH Dossier; Reproductive toxicity: Species: Rat (Sprague-Dawley); Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test); Results: NOAEL > 1000 mg/kg Literature information: REACH Dossier; Developmental toxicity/teratogenicity: Species: Rat (Sprague-Dawley); Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study); Results: NOAEL >= 2000 mg/kg Literature information: REACH Dossier

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
Dec-1-ene, trimers, hydrogenated:
In vitro mutagenicity/genotoxicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative Literature information: REACH Dossier; Reproductive toxicity: Species: Rat; Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test); Result: NOAEL > 1000 mg/kg; Literature information: REACH Dossier

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
In vitro mutagenicity/genotoxicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative Literature information: REACH Dossier; Developmental toxicity/teratogenicity/Reproductive toxicity:; Species: Rat (Sprague-Dawley); Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test); Result: NOAEL = 30 mg/kg; Literature information: REACH Dossier

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate:
In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative Literature information: REACH Dossier; Carcinogenicity: Method: (inhalation.): OECD Guideline 451 (Carcinogenicity Studies, 6h/d); Species: Mouse.; Exposure duration: 2 years; Result: NOAEC = 4,1 mg/l; Literature information: REACH Dossier; Reproductive toxicity: Method: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study); Species: Rat; Result: NOAEL = 400 mg/kg; Literature information: REACH Dossier; Developmental toxicity/teratogenicity: Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study); Species: Rabbit.
Exposure duration: 28d; Result: NOAEL = 450 mg/kg; Literature information: REACH Dossier

triphenyl phosphite:
In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Literature information: REACH Dossier; Result: negative; Reproductive toxicity: Species: Rat (Wistar); Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test); Exposure time: 112d; Results: NOAEL 40 mg/kg; Literature information: REACH Dossier; Developmental toxicity/teratogenicity: Species: Rabbit.; Method: OECD 422; Results: NOAEL 15 mg/kg; Literature information: REACH Dossier

2-tetradecyloxirane, reaction products with boric acid:
In-vitro mutagenicity:
Method:
-OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

-OECD Guideline 471 (Bacterial Reverse Mutation Assay)
-OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Result: negative
Literature information: REACH Dossier

Reproductive toxicity:
Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Species: Rat
Results: NOAEL >= 1000 mg/kg bw/day.

Developmental toxicity/teratogenicity:
Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Species: Rat
Results: NOAEL = 500 mg/kg bw/day.
Literature information: REACH Dossier

No experimental indications of in vivo mutagenicity exist.

Developmental toxicity/teratogenicity:
Species: Rat.
Method: OECD Guideline 414
Result: NOAEL >= 750 mg/kg(bw)/day
Literature information: REACH Dossier

(tetrapropenyl)succinic acid:
In-vitro mutagenicity:
Method:
-OECD Guideline 471 (Bacterial Reverse Mutation Assay)
-OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
-OECD Guideline 490 (In Vitro Mammalian Cell Gene Mutation Tests Using the Thymidine Kinase Gene)
Result: negative
Literature information: REACH Dossier
Developmental toxicity/teratogenicity/Reproductive toxicity:
Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
Species: Rat
Result: NOAEL (P0) > 100 mg/kg; Result: NOAEL (F1) >100 mg/kg
Literature information: REACH Dossier

phenol, dodecyl-, branched:
In vitro mutagenicity/genotoxicity: OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test), OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative Literature information: REACH Dossier; Developmental toxicity/teratogenicity: Species: Rat ; Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study); Result: NOAEL 100 mg/kg; Literature information: REACH Dossier; Reproductive toxicity: Species: Sprague-Dawley Rat; Method: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study);Result: NOAEL 15 mg/kg; Literature information: REACH Dossier

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.
Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified:
Subacute inhalative toxicity: Method: -; Exposure time: 28d; Species: Rat; Results: NOAEL >980 mg/m3; Literature information: REACH Dossier; Subacute dermal toxicity: Method: OECD Guideline 410 (Repeated

Dose Dermal Toxicity: 21/28-Day Study); Exposure time: 28d; Species: Rabbit; Results: 1000 mg/kg; Literature information: REACH Dossier

Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified:
Subacute inhalative toxicity : Method: -; Exposure time: 28d; Species: Rat; Results: NOAEL > 980 mg/m3; 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

Dec-1-ene, trimers, hydrogenated:
Subchronic oral toxicity: Method: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) Species: Rat; Results: NOAEL 1000 mg/kg; Literature information: REACH Dossier

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):
Subacute oral toxicity: Method: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents); Species: Rat; Results: NOAEL = 125 mg/kg; Literature information: REACH Dossier

methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate:
Chronic oral toxicity: Method: -; Species: Rat;Exposure duration: 2 years; Results: NOAEL = 2000 ppm. Literature information: REACH Dossier; Chronic inhalation toxicity: Method: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies, 6h/d); Species: Rat; Exposure duration: approx. 2 years; Results: LOAEC = 250 ppm. Literature information: REACH Dossier

triphenyl phosphite:
Chronic oral toxicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test); Exposure time: 112d; Species: Rat; Results: NOAEL 15 mg/kg

2-tetradecyloxirane, reaction products with boric acid:
Subchronic oral toxicity:
Method: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Species: Rat
Exposure duration: 90 d.
Result: NOAEL >= 1000 mg/kg
Literature information: REACH Dossier

(tetrapropenyl)succinic acid:
Subacute oral toxicity:
Method: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
Species: Rat ; Exposure duration: 28 d
Results: NOAEL >= 100 mg/kg
Literature information: REACH Dossier

phenol, dodecyl-, branched:
Subchronic oral toxicity: Exposure time: 90d. Method: OECD Guideline 408 ; Species: Rat; Results: NOAEL = 100 mg/kg. Subacute oral toxicity: Exposure time: 28d. Method: OECD Guideline 407 ; Species: Rat ; Results: NOAEL = 60 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

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

Other information

Frequently or prolonged contact with skin may cause dermal irritation.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

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.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] | [d]	Species	Source	Method
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified					
	Crustacea toxicity	NOEC 10 mg/l	21 d	Daphnia magna (OECD 211)	ECHA Dossier	
157707-86-3	Dec-1-ene, trimers, hydrogenated					
	Acute fish toxicity	LL50 >1000 mg/l	96 h	Pimephales promelas	ECHA Dossier	USEPA (1975)
	Acute crustacea toxicity	EL50 >1000 mg/l	48 h	Daphnia magna	ECHA Dossier	OECD Guideline 202
	Crustacea toxicity	NOEC 125 mg/l	21 d	Daphnia magna	ECHA Dossier	OECD Guideline 211
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
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)					
	Acute fish toxicity	LL50 4,4 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 410 mg/l	72 h	Desmodesmus subspicatus	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EL50 75 mg/l	48 h	Daphnia magna	ECHA Dossier	OECD Guideline 202
	Acute bacteria toxicity	EC50 26 mg/l ( )	3 h	activated sludge	ECHA Dossier	OECD Guideline 209
	2-tetradecyloxirane, reaction products with boric acid					
	Acute fish toxicity	LC50 LL50 > 100 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	
	Acute algae toxicity	ErC50 EL50 >100 mg/l	72 h	Pseudokirchneriella subcapitata	ECHA Dossier	
	Acute crustacea toxicity	EC50 EL50 >100 mg/l	48 h	Daphnia magna	ECHA Dossier	
	Crustacea toxicity	NOEC 10 mg/l	21 d	Daphnia magna	ECHA Dossier	

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
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate**						
	Acute fish toxicity	LC50	410 mg/l	96 h	Pimephales promelas	ECHA Dossier	
	Acute algae toxicity	ErC50 mg/l	>110	72 h	Pseudokirchnerella subcapitata (OECD 201)	ECHA Dossier	
	Acute crustacea toxicity	EC50	720 mg/l	48 h	Daphnia magna	ECHA Dossier	
121158-58-5	phenol, dodecyl-, branched						
	Acute fish toxicity	LC50 40 mg/l	EL 50 =	96 h	Pimephales promelas	ECHA Dossier	
	Acute algae toxicity	ErC50 mg/l	(0,36)	72 h	Desmodesmus subspicatus	ECHA Dossier	
	Crustacea toxicity	NOEC mg/l	0,0037	21 d	daphnia magna	ECHA Dossier	OECD 211

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.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified			
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	31%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	2-4%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
157707-86-3	Dec-1-ene, trimers, hydrogenated			
	OECD 301D / EEC 92/69 annex V, C.4-E	2 %	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
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).			
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)			
	OECD Guideline 301 B	1%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
	2-tetradecyloxirane, reaction products with boric acid			
	OECD Guideline 301 B	26,7%	28	ECHA Dossier
	Not readily biodegradable (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).			
101-02-0	triphenyl phosphite			
	OECD 301D / EEC 92/69 annex V, C.4-E	0,14%	28	REACH Dossier
	Not readily biodegradable (according to OECD criteria)			
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate**			
	OECD 301C / ISO 9408 / EWG 92/69 Anhang V, C.4-F	94%	14	ECHA Dossier
	Readily biodegradable (according to OECD criteria).			
121158-58-5	phenol, dodecyl-, branched			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	25%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
157707-86-3	Dec-1-ene, trimers, hydrogenated	>6,5
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified	> 3,5
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	3,59
	2-tetradecyloxirane, reaction products with boric acid	>= 6.24 - 9.4
27859-58-1	(tetrapropenyl)succinic acid	>= 3,286
101-02-0	triphenyl phosphite	6,62
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate**	1,32
121158-58-5	phenol, dodecyl-, branched	7,1

BCF

CAS No	Chemical name	BCF	Species	Source
121158-58-5	phenol, dodecyl-, branched	2,9		

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

Based on available data, the classification criteria are not met.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.6. Endocrine disrupting properties

Based on available data, the classification criteria are not met.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

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)

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

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 9006
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3. Transport hazard class(es):	9
14.4. Packing group:	-
Hazard label:	-
Classification code:	M12

Marine transport (IMDG)

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

Air transport (ICAO-TI/IATA-DGR)

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

EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):

phenol, dodecyl-, branched

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)
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): 3, 75
Observe in addition any national regulations!

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
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): 11,15,16.
Rev.: 1,0 - 16.04.2015
Rev.: 1,1 - 27.04.2016
Rev.: 2,0 - 30.05.2017
Rev.: 3,0 - 27.06.2018
Rev.: 4,0 - 18.06.2019
Rev.: 5,0 - 23.07.2020; Changes in chapter: 3.2, 9.1, 11.1, 12.1 , 15.1 , 16
Rev.: 6,0 - 10.02.2021; Changes in chapter: 2.1, 3.2, 8.1, 11.1, 12.1 , 12.2, 12.3, 15.1 , 16
Rev.: 7,0 - 07.02.2022, Changes in chapter:, 2.3, 3.2, 6.1, 6.3, 8.1, 8.2, 11.2, 12.5, 12.6, 12.7, 15.1, 16
Rev.: 8,0 - 31.01.2023, Changes in chapter:, 2.3, 3.2, 9.1, 12.6, 16
Rev.: 8,1 - 16.10.2023, Changes in chapter: 2.2, 3.2, 8.1, 11.1, 11.2, 12.1, 12.2, 12.3, 12.7, 14, 15, 16
Rev.: 8.2 - 13.05.2024, Changes in chapter: 3.2, 11.1, 12.1, 12.2, 12.3, 16
Rev.: 8,3 - 15.07.2024, Changes in chapter: 2.2, 3.2, 11.1, 11.2, 12.1, 12.2, 12.3, 16
Rev.: 9.0 - 02.07.2025, Changes in chapter: 11.1, 15.1,16
Rev.: 9.1 - 16.01.2026, Changes in chapter: 3.2, 16
Rev.: 9,2 - 04.06.2026, Changes in chapter: 3.2, 8.1, 11.1, 11.2, 12.1, 12.2, 12.3, 16

Abbreviations and acronyms

Flam. Liq. 2: Flammable liquids, hazard category 2
Acute Tox. 4: Acute toxicity, hazard category 4
Asp. Tox. 1: Aspiration hazard, hazard category 1
ED HH 1: Endocrine disruptor for human health, hazard category 1
Skin Corr. 1C: Skin corrosion, sub-category 1C
Skin Irrit. 2: Skin irritation, hazard category 2
Eye Dam. 1: Serious eye damage, hazard category 1
Eye Irrit. 2: Eye irritation, hazard category 2
Skin Sens. 1: Skin sensitisation, hazard category 1
Skin Sens. 1B: Skin sensitisation, hazard category 1B
Repr. 1B: Reproductive toxicity, hazard category 1B
Repr. 2: Reproductive toxicity, hazard category 2
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3
STOT RE 2: Specific target organ toxicity - repeated exposure, hazard category 2
Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard category: Chronic 2
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3
Aquatic Chronic 4: Hazardous to the aquatic environment, long-term hazard category: Chronic 4
ED ENV 1: Endocrine disruptor for the environment, hazard category 1
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)

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://webrigoletto.uba.de/rigoletto/

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
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.
H335	May cause respiratory irritation.
H360F	May damage fertility.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH208	Contains 2-tetradecyloxirane, reaction products with boric acid, triphenyl phosphite, methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate. May produce an allergic reaction.

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.)