

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 27/02/2019 Revision date: 25/04/2024 Supersedes version of: 28/09/2022 Version: 3.0

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

1.1. Product identifier

Product form : Mixture

Product name : HYDRAULIC XHV 28 ARCTIC

Product code : 24500
Type of product : WOC
Product group : Blend

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use

Industrial/Professional use spec : Non-dispersive use
Used in closed systems

: Lubricants and additives

1.2.2. Uses advised against

Function or use category

No additional information available

1.3. Details of the supplier of the safety data sheet

WOLF OIL CORPORATION N.V.

Georges Gilliotstraat, 52 2620 Hemiksem, Antwerpen

België

T 0032 (0)3 870 00 00, F 0032 (0)3 870 00 99

msds@wolfoil.com

1.4. Emergency telephone number

Emergency number : 0032 (0)3 870 00 00

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Israel	Israel Poison Information Center Rambam Health Care Campus	6 Ha'Aliya Street 31096	+972 4 854 1900	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital Msida MSD 2090	+356 2545 6508	
Sweden	Giftinformationscentralen	Box 60 500 171 76 Stockholm	112 – begär Giftinformation +46 10 456 6700 (Från utlandet)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazardous to the aquatic environment – Chronic Hazard, H412

Category 3

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Signal word (CLP) : -

Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P273 - Avoid release to the environment.

P501 - Dispose of contents and container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

EUH-statements : EUH208 - Contains Methyl methacrylate. May produce an allergic reaction.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : The mineral oils in the product contain < 3% DMSO extract (IP 346)

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	CAS-No.: 4259-15-8 EC-No.: 224-235-5	1 – 1.49	Eye Dam. 1, H318 Aquatic Chronic 2, H411
2,6-Di-tert-butylphenol	CAS-No.: 128-39-2 EC-No.: 204-884-0 REACH-no: 01-2119490822- 33	0.1 – 0.75	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Methyl methacrylate	CAS-No.: 80-62-6 EC-No.: 201-297-1 EC Index-No.: 607-035-00-6	0.1 – 0.24	Flam. Liq. 2, H225 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	CAS-No.: 4259-15-8 EC-No.: 224-235-5	(50 ≤ C < 80) Eye Irrit. 2, H319 (80 ≤ C < 100) Eye Dam. 1, H318
2,6-Di-tert-butylphenol	CAS-No.: 128-39-2 EC-No.: 204-884-0 REACH-no: 01-2119490822- 33	(35 ≤ C < 100) Skin Irrit. 2, H315

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Not expected to require first aid measures. First-aid measures after skin contact : Wash skin with mild soap and water.

First-aid measures after eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes. First-aid measures after ingestion : Do not induce vomiting. Rinse mouth. Get immediate medical advice/attention.

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

Symptoms/effects after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of

normal use.

Symptoms/effects after skin contact : Not expected to present a significant skin hazard under anticipated conditions of normal

use.

Symptoms/effects after eye contact : May cause severe irritation.

Symptoms/effects after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of

normal use.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water fog. Foam. Powder. Dry chemical product.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire. Firefighting instructions : Use water spray or fog for cooling exposed containers.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and gloves.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Impound and recover large spill by mixing it with inert granular solids.

Methods for cleaning up : Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.

Other information : Spill area may be slippery. Use suitable disposal containers.

6.4. Reference to other sections

No additional information available

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are

usually required.

< 40 °C Handling temperature

Hygiene measures Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

: ≤ 40 °C Storage temperature

Storage area : Store in dry, cool, well-ventilated area.

Germany

Storage class (LGK, TRGS 510) : LGK 10-13 - Other combustible and non-combustible substances

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
Slovakia - Occupational Exposure Limits	
NPHV (OEL TWA)	2 mg/m³ inhalable fraction
	0.1 μg/l
Methyl methacrylate (80-62-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Methyl methacrylate
IOEL TWA	50 ppm @8h
IOEL STEL	100 ppm @15min
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	208 mg/m³ @8h
	50 ppm @8h
MAK (OEL STEL)	416 mg/m³ @15min
	100 ppm @15min
Belgium - Occupational Exposure Limits	
Local name	Méthacrylate de méthyle # Methylmethacrylaat
OEL TWA	208 mg/m³ @8h
	50 ppm @8h
OEL STEL	416 mg/m³ @15min
	100 ppm @15min
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

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Methyl methacrylate (80-62-6)		
Bulgaria - Occupational Exposure Limits		
OEL TWA	50 ppm @8h	
OEL STEL	100 ppm @15min	
Croatia - Occupational Exposure Limits		
GVI (OEL TWA)	50 ppm @8h	
KGVI (OEL STEL)	100 ppm @15min	
Czech Republic - Occupational Exposure Limits		
PEL (OEL TWA)	50 mg/m³ @8h	
	12 ppm @8h	
NPK-P (OEL C)	150 mg/m³ @15min	
	36 ppm @15min	
Denmark - Occupational Exposure Limits		
OEL TWA	102 mg/m³ @8h	
	25 ppm @8h	
Estonia - Occupational Exposure Limits		
OEL TWA	50 ppm @8h	
OEL STEL	100 ppm @15min	
Finland - Occupational Exposure Limits		
HTP (OEL TWA)	42 mg/m³ @8h	
	10 ppm @8h	
HTP (OEL STEL)	210 mg/m³ @15min	
	50 ppm @15min	
France - Occupational Exposure Limits		
VME (OEL TWA)	205 mg/m³ @8h	
	50 ppm @8h	
VLE (OEL C/STEL)	410 mg/m³ @15min	
	100 ppm @15min	
Germany - Occupational Exposure Limits (TRGS 900)		
AGW (OEL TWA)	210 mg/m³ @8h	
	50 ppm @8h	
Greece - Occupational Exposure Limits		
OEL TWA	50 ppm @8h	
OEL STEL	100 ppm @15min	
Hungary - Occupational Exposure Limits		
AK (OEL TWA)	208 mg/m³ @8h	
Ireland - Occupational Exposure Limits		
OEL TWA	50 ppm @8h	
OEL STEL	100 ppm @15min	

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Italy - Occupational Exposure Limits	Methyl methacrylate (80-62-6)		
OEL STEL 100 ppm @15min Latvia - Occupational Exposure Limits 10 mg/m³ @8h DEL TWA 10 mg/m³ @8h Lithuania - Occupational Exposure Limits 208 mg/m³ @8h FPRV (OEL STEL) 416 mg/m³ @15min 100 ppm @15min 100 ppm @15min Netherlands - Occupational Exposure Limits 100 ppm @15min TGG-8u (OEL TWA) 205 mg/m³ TGG-15min (OEL STEL) 410 mg/m³ Poland - Occupational Exposure Limits NDS (OEL TWA) NDS (OEL TWA) 100 mg/m³ @8h NDSP (OEL C) 300 mg/m³ @15min Portugal - Occupational Exposure Limits OEL TWA OEL TWA 50 ppm @8h OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits OEL TWA OEL TWA 205 mg/m³ @15min OEL STEL 410 mg/m³ @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovakia - Occupational Exposure Limits OEL TWA	Italy - Occupational Exposure Limits		
Latvia - Occupational Exposure Limits	OEL TWA	50 ppm @8h	
OEL TWA 10 mg/m³ @8h Lithuania - Occupational Exposure Limits IPRV (OEL TWA) 208 mg/m³ @8h 50 ppm @8h TPRV (OEL STEL) 416 mg/m³ @15min Netherlands - Occupational Exposure Limits TGG-8u (OEL TWA) 205 mg/m³ TGG-15min (OEL STEL) 410 mg/m² Poland - Occupational Exposure Limits 100 mg/m³ @8h NDS (OEL TWA) 100 mg/m³ @15min Portugal - Occupational Exposure Limits 50 ppm @8h OEL TWA 50 ppm @8h OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits 205 mg/m³ @8h OEL TWA 205 mg/m³ @15min OEL STEL 410 mg/m³ @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) NPHV (OEL TWA) 50 ppm @8h NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits 100 ppm @15min Slovenia - Occupational Exposure Limits 210 mg/m³ @8h	OEL STEL	100 ppm @15min	
Lithuania - Occupational Exposure Limits IPRV (OEL TWA) 208 mg/m³ @8h 50 ppm @8h TPRV (OEL STEL) 416 mg/m³ @15min Netherlands - Occupational Exposure Limits TGG-8u (OEL TWA) 205 mg/m³ TGG-15min (OEL STEL) 410 mg/m³ Poland - Occupational Exposure Limits NDS (OEL TWA) 100 mg/m³ @8h NDSP (OEL C) 300 mg/m³ @15min Portugal - Occupational Exposure Limits OEL TWA OEL TWA 50 ppm @8h OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits OEL TWA OEL TWA 205 mg/m³ @8h 50 ppm @8h 50 ppm @8h OEL STEL 410 mg/m³ @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovania - Occupational Exposure Limits 100 ppm @15min Slovania - Occupational Exposure Limits 210 mg/m³ @8h	Latvia - Occupational Exposure Limits		
IPRV (OEL TWA)	OEL TWA	10 mg/m³ @8h	
S0 ppm @8h	Lithuania - Occupational Exposure Limits		
TPRV (OEL STEL)	IPRV (OEL TWA)	208 mg/m³ @8h	
100 ppm @15min Netherlands - Occupational Exposure Limits 205 mg/m³ 205 mg/m³ 7GG-15min (OEL STEL) 410 mg/m³ 410 mg/m³ 88h NDS (OEL TWA) 100 mg/m³ @15min 700 ppm @15min		50 ppm @8h	
Netherlands - Occupational Exposure Limits TGG-8u (OEL TWA) 205 mg/m³ TGG-15min (OEL STEL) 410 mg/m³ Poland - Occupational Exposure Limits NDS (OEL TWA) 100 mg/m³ @8h NDSP (OEL C) 300 mg/m³ @15min Portugal - Occupational Exposure Limits OEL TWA 50 ppm @8h OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits OEL TWA 205 mg/m³ @8h 50 ppm @8h OEL STEL 410 mg/m³ @15min Tourish of the major of the m	TPRV (OEL STEL)	416 mg/m³ @15min	
TGG-8u (OEL TWA) 205 mg/m³ TGG-15min (OEL STEL) 410 mg/m³ Poland - Occupational Exposure Limits NDS (OEL TWA) 100 mg/m³ @8h NDSP (OEL C) 300 mg/m³ @15min Portugal - Occupational Exposure Limits OEL TWA 50 ppm @8h OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits 205 mg/m³ @8h OEL STEL 410 mg/m³ @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits 210 mg/m³ @8h		100 ppm @15min	
TGG-15min (OEL STEL)	Netherlands - Occupational Exposure Limits		
Poland - Occupational Exposure Limits NDS (OEL TWA) 100 mg/m³ @8h NDSP (OEL C) 300 mg/m³ @15min Portugal - Occupational Exposure Limits OEL TWA 50 ppm @8h OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits OEL TWA 205 mg/m³ @8h 50 ppm @8h 50 ppm @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h	TGG-8u (OEL TWA)	205 mg/m³	
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NDSP (OEL C) 300 mg/m³ @15min	Poland - Occupational Exposure Limits		
Portugal - Occupational Exposure Limits OEL TWA 50 ppm @8h OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits OEL TWA 205 mg/m³ @8h 50 ppm @8h OEL STEL 410 mg/m³ @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h	NDS (OEL TWA)	100 mg/m³ @8h	
OEL TWA 50 ppm @8h OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits 205 mg/m³ @8h OEL TWA 205 mg/m³ @8h OEL STEL 410 mg/m³ @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h	NDSP (OEL C)	300 mg/m³ @15min	
OEL STEL 100 ppm @15min Romania - Occupational Exposure Limits 205 mg/m³ @8h OEL TWA 205 mg/m³ @8h 50 ppm @8h 410 mg/m³ @15min 100 ppm @15min 100 ppm @15min Slovakia - Occupational Exposure Limits 50 ppm @8h NPHV (OEL TWA) 50 ppm @15min Slovenia - Occupational Exposure Limits 100 ppm @15min OEL TWA 210 mg/m³ @8h	Portugal - Occupational Exposure Limits		
Romania - Occupational Exposure Limits	OEL TWA	50 ppm @8h	
OEL TWA 205 mg/m³ @8h 50 ppm @8h OEL STEL 410 mg/m³ @15min 100 ppm @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h	OEL STEL	100 ppm @15min	
50 ppm @8h	Romania - Occupational Exposure Limits		
OEL STEL 410 mg/m³ @15min 100 ppm @15min Slovakia - Occupational Exposure Limits NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h	OEL TWA	205 mg/m³ @8h	
Slovakia - Occupational Exposure Limits NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h		50 ppm @8h	
Slovakia - Occupational Exposure Limits NPHV (OEL TWA) 50 ppm @8h NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h	OEL STEL	410 mg/m³ @15min	
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NPHV (OEL STEL) 100 ppm @15min Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h	Slovakia - Occupational Exposure Limits		
Slovenia - Occupational Exposure Limits OEL TWA 210 mg/m³ @8h	NPHV (OEL TWA)	50 ppm @8h	
OEL TWA 210 mg/m³ @8h	NPHV (OEL STEL)	100 ppm @15min	
	Slovenia - Occupational Exposure Limits		
50 ppm @8h	OEL TWA	210 mg/m³ @8h	
35 FF 35		50 ppm @8h	
OEL STEL 420 mg/m³ @15min	OEL STEL	420 mg/m³ @15min	
100 ppm @15min		100 ppm @15min	
Spain - Occupational Exposure Limits			
VLA-ED (OEL TWA) 50 ppm @8h	VLA-ED (OEL TWA)	50 ppm @8h	
VLA-EC (OEL STEL) 100 ppm @15min	VLA-EC (OEL STEL)	100 ppm @15min	
Sweden - Occupational Exposure Limits			
NGV (OEL TWA) 210 mg/m³ @8h	NGV (OEL TWA)	210 mg/m³ @8h	
50 ppm @8h		50 ppm @8h	

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Methyl methacrylate (80-62-6)	
KTV (OEL STEL)	420 mg/m³ @15min
	100 ppm @15min
Iceland - Occupational Exposure Limits	
OEL TWA	50 ppm @8h
OEL STEL	100 ppm @15min
Norway - Occupational Exposure Limits	
Grenseverdi (OEL TWA)	100 mg/m³ @8h
	25 ppm @8h
Korttidsverdi (OEL STEL)	400 mg/m³ @15min
	100 ppm @15min

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Additional information

: 5 mg/m3 for oil mists (TWA, 8h-workday) recommended, based upon the ACGIH TLV (Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods, 3rd Edition).

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Safety glasses. Gloves.

Personal protective equipment symbol(s):





8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Hand protection:

Permeation time: minimum >480min long term exposure; material / thickness [mm]: >0,35 mm. Nitrile rubber (NBR) /

8.2.2.3. Respiratory protection

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.

8.2.2.4. Thermal hazards

No additional information available

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8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Colour : Yellow. Appearance Oily liquid. Odour Characteristic. Odour threshold : Not available Melting point : Not available Freezing point : Not available : Not available Boiling point : Not available Flammability Lower explosion limit : Not available Upper explosion limit : Not available Flash point : > 150 °C (ASTM D92)

Auto-ignition temperature : Not available
Decomposition temperature : Not available
pH : Not available
it Not available

Viscosity, kinematic : 29500000 mm²/s @ 40°C (ASTM D445)

Solubility : Slightly soluble, the product remains on the water surface.

Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50°C : Not available

Density : 847 kg/m³ @15°C (ASTM D4052)

Relative density : Not available
Relative vapour density at 20°C : Not available
Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong oxidizers. acids. Bases.

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10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 10000 ma/ka

LD50 dermal rabbit > 10000 mg/kg

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

 LD50 oral rat
 3100 mg/kg (OECD TG 401)

 LD50 dermal rabbit
 > 5000 mg/kg (OECD TG 402)

Methyl methacrylate (80-62-6)

2,6-Di-tert-butylphenol (128-39-2)

LD50 oral rat	7900 mg/kg
LD50 dermal rabbit	> 5000 mg/kg (OECD 402)
LC50 Inhalation - Rat (Vapours)	29.8 mg/l/4h

Skin corrosion/irritation: Not classifiedSerious eye damage/irritation: Not classifiedRespiratory or skin sensitisation: Not classified

Methyl methacrylate (80-62-6)

Skin sensitization, - Skin contact, mouse Skin sensitization (OECD 429)

Germ cell mutagenicity : Not classified

Methyl methacrylate (80-62-6)

In vitro Mammalian Cell Gene Mutation Test, In vitro, mammalian	Positive (OECD 476, WOE does not support classification)
In vitro Mammalian Chromosomal Aberration Test, In vitro, mammalian	Equivocal (OECD 473, WOE does not support classification)
Rodent Dominant Lethal Test, In vivo, mammalian	Negative (OECD 478)
Bacterial Reverse Mutation Test, In vitro, Bacteria	Negative (OECD 471)

Carcinogenicity : Not classified

Methyl methacrylate (80-62-6)

Combined Chronic Toxicity/Carcinogenicity Studies,	Negative (104w; 5d/w, OECD 453)
NOAEL, inhalation, rat	

Reproductive toxicity : Not classified STOT-single exposure : Not classified

Methyl methacrylate (80-62-6)

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure : Not classified

2,6-Di-tert-butylphenol (128-39-2)

NOAEL (subacute, oral, 28 days)

100 mg/kg bodyweight/day (407 Repeated Dose 90-Day Oral Toxicity Study in Rodents)

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2,6-Di-tert-butylphenol (128-39-2)	
NOAEL (subchronic, oral, 90 days) 270 mg/kg bodyweight/day (408 Repeated Dose 90-Day Oral Toxicity Study in Re	
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
NOAEL, subacute, oral, rat	125 mg/kg (days, OECD TG 407)
Aspiration hazard :	Not classified
HYDRAULIC XHV 28 ARCTIC	
Viscosity, kinematic	29500000 mm²/s @ 40°C (ASTM D445)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term

(acute)

Hazardous to the aquatic environment, long-term (chronic)

: Not classified

: Harmful to aquatic life with long lasting effects.

2,6-Di-tert-butylphenol (128-39-2)		
LC50 - Fish [1]	1.4 mg/l @96h (Pimephales promelas)	
EC50 - Crustacea [1]	0.45 mg/l @48h (Daphnia magna)	
EC50 - Other aquatic organisms [1]	> 1000 mg/l @3h Microorganism	
EC50 72h - Algae [1]	1.2 mg/l @96h (Pseudokirchneriella subcapitata)	
NOEC chronic crustacea	0.035 mg/l @21d Daphnia magna	
NOEC chronic algae	0.64 mg/l Pseudokirchneriella subcapitata @96h	
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)		
LC50 - Fish [1]	4.4 mg/l Oncorhynchus mykiss	
EC50 - Crustacea [1]	75 mg/l Daphnia magna	
EC50 72h - Algae [1]	410 mg/l Desmodesmus subspicatus	
NOEC chronic crustacea	0.4 mg/l Daphnia magna @21d	
NOEC chronic algae	220 mg/l Desmodesmus subspicatus @72h	
Methyl methacrylate (80-62-6)		
LC50 - Fish [1]	> 79 mg/l @96h; Oncorhynchus mykiss	
EC50 - Crustacea [1]	69 mg/l @48h; Daphnia magna	
EC50 72h - Algae [1]	> 110 mg/l @72h; Pseudokirchneriella subcapitata	
NOEC chronic fish	9.4 mg/l @35d; Danio rerio (OECD 210)	
NOEC chronic crustacea	37 mg/l @21d; Daphnia magna (OECD 211)	
NOEC chronic algae	110 mg/l @72h, Selenastrum capricornutum (OECD 201)	

12.2. Persistence and degradability

HYDRAULIC XHV 28 ARCTIC	
Persistence and degradability	Not soluble in water, so only minimally biodegradable.

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2,6-Di-tert-butylphenol (128-39-2)	
Persistence and degradability	Rapidly degradable
Biodegradation	≥ 12 - ≤ 24 % @28d (OECD ECHA 302C)
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
Persistence and degradability	Limited biodegradability.
Biodegradation	< 5 % @28d
Methyl methacrylate (80-62-6)	
Persistence and degradability	Rapidly degradable
Biodegradation	94 % @14d (OECD 301 C)

12.3. Bioaccumulative potential

2,6-Di-tert-butylphenol (128-39-2)	
Partition coefficient n-octanol/water (Log Pow) 4.5	
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)	
Partition coefficient n-octanol/water (Log Pow)	3.59
Methyl methacrylate (80-62-6)	
Partition coefficient n-octanol/water (Log Kow)	1.38

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Additional information : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : Not applicable UN-No. (IMDG) : Not applicable UN-No. (IATA) : Not applicable

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UN-No. (ADN) : Not applicable UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not applicable
Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 82	Conditions caused by methyl methacrylate

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed SZW-lijst van mutagene stoffen : None of the components are listed SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed SZW-lijst van reprotoxische stoffen – : None of the components are listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

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SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Revision date	Modified	
	SDS EU format	Modified	
	Supersedes	Modified	
2.2	EUH-statements	Added	
9.1	Flash point	Modified	
9.1	Density	Modified	
9.1	Viscosity, kinematic	Modified	
12.6	Adverse effects on the environment caused by endocrine disrupting properties	Added	
15.1	Water hazard class (WGK)	Modified	
15.1	Storage class (LGK, TRGS 510)	Added	

Abbreviations and acronyms:	
	ACGIH: American Conference of Governmental Industrial Hygienists
	TWA: Time Weighted Average
	TLV: Threshold Limit Value
	ASTM: American Society for Testing and Materials
	ADR: Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route
	RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
	ADNR: Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
	IMDG: International Maritime Dangerous Goods
	ICAO: International Civil Aviation Organization
	IATA: International Air Transport Association
	STEL: Short Term Exposure Limit
	LD50: median Lethal Dose for 50% of subjects
	ATE: acute toxicity estimate
	LC50: median Lethal Concentration for 50% of subjects
	EC50: concentration producing 50% effect

Other information

: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
EUH208	Contains Methyl methacrylate. May produce an allergic reaction.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
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.
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.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.