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

1.1 Product identifier

Chemical name/ trade name: **CLP 220**

UFI: TSCF-0GKW-MHFH-YRH2

Producer: **OMA CZ, a.s.**

Address: **Borová 103, 47127, Stráž pod Ralskem**

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

Intended use: Industrial gear oil

Uses advised against: The use should be limited to those listed above.

1.3 Details of the supplier of the safety data sheet

Supplier of SDS: OMA CZ, a.s.

Address: Stráž pod Ralskem, 47127, Borová 103

Identification No.: 25406761

Tel: +420 487 851 016

www: www.omacz.cz

Responsible person for this SDS: OMA CZ, a.s., laborator@omacz.cz

1.4 Emergency telephone number

Toxicology Information Centre, Na Bojišti 1, 120 00 Prague 2. Emergency telephone:+420 224 91 92 93 or +420 224 91 54 02, www.tis-cz.cz

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to the EC Regulation No. 1272/2008 (CLP):

Skin Sens. 1; Skin sensitisation, category 1, H317 May cause an allergic skin reaction.

2.2 Label elements

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

Hazard pictogram(s):

Signal word(s): WARNING

UFI: TSCF-0GKW-MHFH-YRH2

Contain: Polysulfides, di-tert-Bu (CAS 68937-96-2), Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (EINECS 931-384-6), (Z)-N-9-octadecenylpropane-1,3-diamine (CAS 7173-62-8), Lubricating oils (CAS 74869-22-0), Base oil - unspecified (CAS 64741-76-0)

Hazard statement(s): H317 May cause an allergic skin reaction.

Precautionary statement(s):

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / protective clothing / eye protection.
P302/352 IF ON SKIN: Wash with plenty of water.
P333/313 If skin irritation or a rash occurs: Get medical advice/attention.
P362/364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents / container as hazardous waste.

Supplemental information: None.

2.3 Other hazards

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1% by weight or higher.
This product does not contain SVHC in a concentration of 0.1% by weight or higher.
This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Name of the component	Content (weight %)	CAS EINECS Index N° Reg. Number	Classification according to Regulation (EC) No. 1272/2008 (CLP)	
Polysulfides, di-tert-Bu	1,5	68937-96-2 273-103-3 01-2119540515-43-0000	Aquatic Chronic 3 Skin Sens. 1B	H412 H317
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	0,3	931-384-6 01-2119493620-38-0002	Acute Tox. 4 Aquatic Chronic 2 Eye Dam. 1 Skin Sens. 1B	H302 H411 H318 H317
(Z)-N-9-octadecenylpropane-1,3-diamine	0,04	7173-62-8 230-528-9 01-2119487002-46-XXXX	Acute Tox. 4 Aquatic Acute 1 *M-factor: 10* Aquatic Chronic 1 *M-factor: 1* Eye Dam. 1 STOT RE 1 Skin Corr. 1B	H302 H400 H410 H318 H372 H314
Lubricating oils	N/A	74869-22-0 278-012-2 649-484-00-0 01-2119495601-36-0000	*Note L*	-
Base oil - unspecified	N/A	64741-76-0 265-077-7 649-453-00-1 01-2119486951-26-0001	*Note L*	-

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), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

For full text of H-statements see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

4.1.1 General advice:

In the event of an accident or if you feel unwell, seek medical attention immediately (show this BL or label if possible).

4.1.2 Inhalation:

Break Exposure. Remove victim to fresh air, keep calm and warm.

4.1.3 Skin contact:

Remove contaminated clothing and footwear. Wash the affected skin with water and soap. If there is irritation, seek medical attention.

4.1.4 Eye contact:

If the contact lenses are used, carefully remove them and start rinsing with clean water, the affected eye wide open, from the inner corner to the outside and also under the lid for at least 15 minutes. If problems persist, seek medical attention.

4.1.5 Ingestion:

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person or if it has cramps.

4.1.6 Protection of first aiders:

When providing first aid, it is essential to ensure both the rescue and the rescued safety.

4.2 Most important symptoms and effects, both acute and delayed

If first aid procedures are applied effectively, no acute or delayed symptoms or effects are expected.

4.3 Indication of any immediate medical attention and special treatment needed

Decontamination. Symptomatic treatment.
Inhalation. Do not induce vomiting.
Ingestion and inhalation: induce vomiting and gastric lavage are contraindicated. Application of charcoal is ineffective. The affected person is continuously monitored for 48 to 72 hours. Monitoring for signs of pulmonary edema begins 6 hours after ingestion or inhalation and continues for at least 48 to 72 hours

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:	Foam, extinguishing powder, CO_2, water mist.
Unsuitable extinguishing media:	Direct water flow - could cause fire to spread.

5.2 Special hazards arising from the substance or mixture

Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide.

5.3 Advice for firefighters

Do not enter the fire area without protective equipment, including self-contained breathing apparatus. Use a water shower or mist to cool containers exposed to fire. Avoid leakage of extinguishing waters into the environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Prevent contamination of clothing and footwear with the product and contact with skin and eyes. Wear suitable protective clothing, replace contaminated clothing promptly. Larger spills may be covered with foam, if possible, to reduce vapour and aerosol formation. Remove all possible sources of ignition and flashover. Ensure ventilation of the affected area. Evacuate all persons not involved in the rescue work to a safe distance.

6.2 Environmental precautions

Prevent leakage into the environment, avoid ingress into surface water and sewers, soil and land. In case of leakage into the sewage system or water course, inform immediately its administrator, the police, the fire brigade or the environmental department.

6.3 Methods and material for containment and cleaning up

In case of leakage, localize and, if possible, absorb / remove mechanically. Residues or smaller amounts sweep / get absorbed into a suitable absorbent (universal sorbent, diatomaceous earth, soil, sand) and place in suitable containers and labeled for disposal transmit in accordance with applicable regulations.

6.4 Reference to other sections

See section 7, 8 a 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Wear appropriate PPE. Use in well-ventilated areas with fresh air supply. The facility must be equipped in accordance with EN 75 3415. Use suitable handling equipment when handling heavy packages. Avoid spillage of product - risk of slipping. Observe basic hygiene rules. Do not eat, drink or smoke while working. Wash your hands after work. Take off contaminated clothing and wash before further use. Observe the legal regulations on occupational safety and health.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original containers in a dry, cool and well-ventilated place. Do not store with food, drink or feed. Do not store with strong acids and bases. Recommended storage temperature < 50°C. Store away from heat, sparks, open flames.

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Exposure limits: According to national legislation of target country.

Substance	CAS	Permissible exposure limits (mg/m³)	Maximum permissible concentration (mg/m³)	Note
Mineral oils	-	5	10	

Substances with Community Exposure Limits:

Substance	CAS	Limit values (mg/m³)		Note
		OEL	STEL	
No data available.				

8.1.2 DNEL

Polysulfides, di-tert-Bu (CAS: 68937-96-2)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	3.29
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	4.67
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	0.58
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	1.67
Oral	Long-term (chronic)	systemic	mg/kg bw/d	0.167

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (EINECS: 931-384-6)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	8.56
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	12.5
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	2.2
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	6.25
	Short-term (acute)	systemic	mg/kg bw/d	0.024 mg/cm²
Oral	Long-term (chronic)	systemic	mg/kg bw/d	0.25

(Z)-N-9-octadecenylpropane-1,3-diamine (CAS: 7173-62-8)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	0.0395
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	0.0056
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m³	0.00696
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	0.002
Oral	Long-term (chronic)	systemic	mg/kg bw/d	0.002

Lubricating oils (CAS: 74869-22-0)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	2.73
		local	mg/m³	5.58
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	0.97
Consumers				
Oral	Long-term (chronic)	systemic	mg/kg bw/d	0.74

Base oil - unspecified (CAS: 64741-76-0)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m³	2.7
		local	mg/m³	5.58
	Short-term (acute)	systemic	mg/m³	5.58
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	1.0
Consumers				
	Short-term (acute)	systemic	mg/m³	1.2
Oral	Long-term (chronic)	systemic	mg/kg bw/d	0.74

PNEC

Polysulfides, di-tert-Bu (CAS: 68937-96-2)

Component of the environment		PNEC	Unit	Value
Water environment	Freshwater	$PNEC_{water, fresh.}$	µg/L	0.24
	Freshwater, occasional leakage	$PNEC_{water, fresh.}$	mg/L	0.002
	Freshwater sediment	$PNEC_{sed., fresh.}$	mg/kg sediment dw	0.94
	Seawater	$PNEC_{water, mar.}$	µg/L	0.024
	Marine sediment	$PNEC_{sed., mar.}$	mg/kg sediment dw	0.094
Microbiological activity	Wastewater treatment plant	$PNEC_{sew. treat.}$	mg/L	4.51
Terrestrial environment / organisms	Soil	$PNEC_{soil}$	mg/kg soil dw	0.0181
Food chain	Predators	$PNEC_{oral.}$	mg/kg food	6.66

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (EINECS: 931-384-6)

Component of the environment		PNEC	Unit	Value
Water environment	Freshwater	$PNEC_{water, fresh.}$	mg/L	0.001
	Freshwater, occasional leakage	$PNEC_{water, fresh.}$	mg/L	0.085
	Freshwater sediment	$PNEC_{sed., fresh.}$	mg/kg sediment dw	14.4
	Seawater	$PNEC_{water, mar.}$	µg/L	0.12
	Marine sediment	$PNEC_{sed., mar.}$	mg/kg sediment dw	1.44
Microbiological activity	Wastewater treatment plant	$PNEC_{sew. treat.}$	mg/L	24.33
Terrestrial environment / organisms	Soil	$PNEC_{soil}$	mg/kg soil dw	2.94
Food chain	Predators	$PNEC_{oral.}$	mg/kg food	10

(Z)-N-9-octadecenylpropane-1,3-diamine (CAS: 7173-62-8)

Component of the environment		PNEC	Unit	Value
Water environment	Freshwater	$PNEC_{water, fresh.}$	µg/L	10
	Freshwater, occasional leakage	$PNEC_{water, fresh.}$	µg/L	1.48
	Freshwater sediment	$PNEC_{sed., fresh.}$	mg/kg sediment dw	1.72
	Seawater	$PNEC_{water, mar.}$	µg/L	1
	Marine sediment	$PNEC_{sed., mar.}$	mg/kg sediment dw	0.172
Microbiological activity	Wastewater treatment plant	$PNEC_{sew. treat.}$	µg/L	251
Terrestrial environment / organisms	Soil	$PNEC_{soil}$	mg/kg soil dw	10
Food chain	Predators	$PNEC_{oral.}$	mg/kg food	0.089

Lubricating oils (CAS: 74869-22-0)

Component of the environment		PNEC	Unit	Value
Food chain	Predators	$PNEC_{oral.}$	mg/kg food	9.33

Base oil - unspecified (CAS: 64741-76-0)

Component of the environment		PNEC	Unit	Value
Food chain	Predators	$PNEC_{oral.}$	mg/kg food	9.33

8.1.3 Biological limit values

Substance	CAS No:	Indicator	Limit Value
No data available.			

8.2 Exposure controls

8.2.1 Technical measures

Technical measures and appropriate work procedures take precedence over personal protective equipment. Observe the usual hygiene principles. Do not eat, drink, smoke. Before breaks and after work wash your hands with warm water and soap.

8.2.2 Individual protection measures

Respiratory protection:

If the exposure limits are exceeded, when using dust, fog, aerosol, use a suitable filter (type ABEK -EN 14387 - anti-gas and combined filters, type P -EN 143 - particle filters, type FFP3 / FFP2 - EN 149+A1 - Particle-based half masks; EN 142 - mouth masks).

Hand protection:

Protective working gloves (EN 374). Observe the manufacturer's exact instructions, including the time of use. Replace damaged gloves.

Eye / face protection:

Safety glasses with side-plates or facial shields (EN 166); eye and face protection for work use (EN ISO 16321).

Skin protection:

Working clothes (EN ISO 13688) and footwear (EN ISO 20347 and ISO 20345). Protective clothing against liquid chemicals (EN 14605+A1). Protective clothing against chemicals (EN ISO 14325).

8.2.3 Thermal hazards:

No data available.

8.2.4 Environmental exposure controls:

Avoid unnecessary releases into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value	Method	Note
Physical state:	Liquid		
Colour:	Brown		
Odour:	Characteristic petroleum		
Odour threshold:	No data available.		
pH :	No data available.		
Melting point / freezing point (°C):	under -15		
Boiling point or initial boiling point and boiling range (°C):	No data available.		
Flash point (°C):	above 220		
Evaporation rate:	No data available.		
Flammability (gases, liquids and solids):	Flammable		
Lower and upper explosion limit:	No data available.		
Vapour pressure (20 °C):	< 10 Pa		
Vapour pressure (50 °C):	No data available.		
Relative vapour density:	No data available.		
Density and/or relative density (g/cm³, 20 °C):	0.89		
Solubility (20 °C):	Insoluble in water		
Partition coefficient n-octanol/water (log value):	No data available.		
Auto-ignition temperature (°C):	above 390		
Decomposition temperature (°C):	No data available.		
Kinematic viscosity (mm^2/s):	198 to 242 at 40 °C		
Refractive index (20 °C):	No data available.		
Oxidising properties:	No data available.		
Explosive properties:	No data available.		
Particle characteristics:	No data available.		

9.2 Other information

VOC (%): 0

Dry matter content: No data available.

Additional information: Burning point: above 250 °C

9.2.1 Information with regard to physical hazard classes

The product has no physical hazards.

9.2.2 Other safety characteristics

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not expected under proper conditions of use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Dangerous reactions are not known.

10.4 Conditions to avoid

Heat to high temperatures, presence of ignition sources, contact with open flames.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

None under normal conditions, possible formation of carbon monoxide when burning in lack of air.

SECTION 11: Toxicological information

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

Individual components:

Polysulfides, di-tert-Bu (CAS: 68937-96-2)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 401, key study	2 000 mg/kg bw, LD0	oral: gavage	rat
OECD 402, key study	2 000 mg/kg bw, LD0	dermal	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
OECD 405, key study	GHS criteria not met	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	Category 3 (mild irritant) based on GHS criteria	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 406, key study	sensitising	Skin	guinea pig

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
OECD 407, key study	100 mg/kg bw/day (actual dose received), NOAEL 300 mg/kg bw/day (actual dose received), LOAEL 300 mg/kg bw/day (actual dose received)	oral	rat

Carcinogenicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms

OECD 474, key study	negative	oral: gavage	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
OECD 421, key study	75 mg/kg bw/day (actual dose received), NOAEL 150 mg/kg bw/day (actual dose received), LOAEL >= 150 mg/kg bw/day (actual dose received), NOEL 150 mg/kg bw/day (actual dose received), NOEL 75 mg/kg bw/day (actual dose received), LOAEL 150 mg/kg bw/day (actual dose received) 150 mg/kg bw/day (actual dose received)	oral: gavage	rat

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (EINECS: 931-384-6)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 401, key study	2 000 mg/kg bw, approximate LD50	oral: gavage	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
key study	Category 1 (irreversible effects on the eye) based on GHS criteria	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	GHS criteria not met	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 429, key study	Category 1B (indication of skin sensitising potential) based on GHS criteria	Skin	mouse

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
key study	50 mg/kg bw/day (actual dose received), NOEL 150 mg/kg bw/day (actual dose received), NOAEL	oral	rat

Carcinogenicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 474, key study	negative	intraperitoneal	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
OECD 421, key study	15 mg/kg bw/day (actual dose received), NOEL 15 mg/kg bw/day (nominal), NOEL		rat

(Z)-N-9-octadecenylpropane-1,3-diamine (CAS: 7173-62-8)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 423, key study	500 mg/kg bw, approximate LD50	oral: gavage	rat

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	corrosive	Skin	rabbit

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
OECD 408, key study	0.4 mg/kg bw/day (actual dose received), NOAEL	oral	rat

Carcinogenicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 471, key study	negative	In vitro	other: S. typhimurium TA 1535, TA 1537, TA 98, TA 100 and E. coli WP2 uvrA

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
OECD 416, key study	9 mg/kg bw/day (actual dose received), NOAEL 27 mg/kg bw/day (actual dose received), NOAEL 9 mg/kg bw/day (actual dose received), NOAEL	oral: gavage	rat

Lubricating oils (CAS: 74869-22-0)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 401, key study	> 5 000 mg/kg bw, LD50	oral: gavage	rat
OECD 402, key study	> 5 000 mg/kg bw, LD50	dermal	rabbit
OECD 403, key study	2.18 mg/L air	inhalation: aerosol	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
OECD 405, key study	not irritating	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	study cannot be used for classification	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 406, key study	not sensitising	Skin	guinea pig

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
OECD 408, key study	125 mg/kg bw/day (nominal), NOAEL	oral	rat
OECD 412, key study	ca. 220 mg/m³ air (analytical), NOEC > 980 mg/m³ air (analytical), NOAEC	inhalation	rat
OECD 453, key study	100 mg/kg bw/day, LOAEL	dermal	mouse

Carcinogenicity

Test type	Results	Exposure	Tested organisms
OECD 451, key study	non-carcinogenic, other:	dermal	mouse

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 474, key study	negative	oral gavage or intraperitoneal injection	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
OECD 421, key study	>= 1 000 mg/kg bw/day, NOAEL >= 1 000 mg/kg bw/day, NOAEL	oral: gavage	rat

Base oil - unspecified (CAS: 64741-76-0)

Acute toxicity

Test type	Results	Exposure	Tested organisms
401, key study	> 5 000 mg/kg bw LD50	oral: gavage	rat
402, key study	> 2 000 mg/kg bw LD50	dermal	rabbit
403, key study	2.18 mg/L air	inhalation: aerosol	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
405, key study	not irritating	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
406, key study	not sensitising	Skin	guinea pig

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
408, key study	125 mg/kg bw/day (nominal) NOAEL	oral	rat
key study	> 980 mg/m³ air (analytical) NOAEL	inhalation	rat
410, key study	ca. 1 000 mg/kg bw/day NOAEL	dermal	rabbit

Carcinogenicity

Test type	Results	Exposure	Tested organisms
453, key study	100 mg/kg bw/day dose level: 75 microlitres per week (100 mg/kg/day)	dermal	mouse

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
474, key study	negative	oral gavage or intraperitoneal injection	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
421, key study	>= 1 000 mg/kg bw/day NOAEL	oral: gavage	rat

Mixture:

Acute toxicity:	The product does not meet the criteria for classification.
Serious eye damage / irritation:	The product does not meet the criteria for classification.
Skin corrosion / irritation:	The product does not meet the criteria for classification.
Respiratory or skin sensitisation:	May cause an allergic skin reaction.
STOT - single exposure:	The product does not meet the criteria for classification.
STOT - repeated exposure:	The product does not meet the criteria for classification.
Carcinogenicity:	The product does not meet the criteria for classification.
Germ cell mutagenicity:	The product does not meet the criteria for classification.
Reproductive toxicity:	The product does not meet the criteria for classification.
Aspiration hazard:	The product does not meet the criteria for classification.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

The product does not meet the criteria for classification.

Polysulfides, di-tert-Bu (CAS: 68937-96-2)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Danio rerio*	>= 0.088 mg/L, NOEC / 96 h >= 0.088 mg/L, LC0 / 96 h	OECD 203
Acute toxicity to invertebrates	*Daphnia magna*	63 mg/L, EL50 / 48 h 18 mg/L, NOELR / 48 h 32 mg/L, LOELR / 48 h	OECD 202
Acute toxicity to aquatic algae	*Pseudokirchneriella subcapitata*	0.838 mg/L, EC50 / 72 h 0.161 mg/L, EC10 / 72 h	OECD 201

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (EINECS: 931-384-6)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Oncorhynchus mykiss*	ca. 24 mg/L, LL50 / 96 h ca. 3.2 mg/L, NOELR / 96 h	OECD 203
Acute toxicity to invertebrates	*Daphnia magna*	ca. 91.4 mg/L, EL50 / 48 h	OECD 202
Acute toxicity to aquatic algae	*Pseudokirchneriella subcapitata*	6.4 mg/L, EC50 / 96 h 15 mg/L, EC50 / 96 h 1.7 mg/L, NOEC / 96 h 3.3 mg/L, NOEC / 96 h	OECD 201

(Z)-N-9-octadecenylpropane-1,3-diamine (CAS: 7173-62-8)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Danio rerio*	0.1 mg/L, LC0 / 96 h 0.148 mg/L, LC50 / 96 h 0.22 mg/L, LC100 / 96 h	OECD 203
Acute toxicity to invertebrates	*Daphnia magna*	290 µg/L, EC50 / 21 d	

Acute toxicity to aquatic algae	*Desmodesmus subspicatus*	507 µg/L, EC50 / 72 h 188 µg/L, EC10 / 72 h	OECD 201
Biotic degradation		Readily biodegradable (100%)	
Bioaccumulation		4,59999990463257	
log Kow / log Pow		0, log Kow	

Lubricating oils (CAS: 74869-22-0)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Pimephales promelas*	> 100 mg/L, LL50 / 96 h >= 100 mg/L, other: / 96 h	OECD 203
Acute toxicity to invertebrates	*Daphnia magna*	> 10 000 mg/L, EL50 / 24 h > 10 000 mg/L, EL50 / 48 h >= 10 000 mg/L, other: / 48 h	OECD 202
Acute toxicity to aquatic algae	*Raphidocelis subcapitata*	>= 100 mg/L, other: / 72 h >= 100 mg/L, other: / 72 h	OECD 201

Base oil - unspecified (CAS: 64741-76-0)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	*Pimephales promelas*	> 100 mg/L LL50 / 96 h	203
Acute toxicity to invertebrates	*Daphnia magna*	> 10 000 mg/L EL50 / 48 h	202
Acute toxicity to aquatic algae	*Pseudokirchneriella subcapitata*	> = 100 mg / L NOEL / 72 h	201

12.2 Persistence and degradability

There is no data available for the product.

Biotic degradation: The biodegradability of the component is given in sec. 12.1

12.3 Bioaccumulative potential

There is no data available for the product.

log Kow / log Pow: The value of the partition coefficient of the component is given in sec. 12.1

Bioaccumulation: The value of the bioaccumulation factor of the component is given in sec. 12.1

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1% by weight or higher.

12.6 Endocrine disrupting properties

This product does not contain endocrine disruptors in a concentration of 0.1% by weight or higher.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Catalogue No. of substance/mixture waste:

13 02 05 Mineral-based non-chlorinated engine, gear and lubricating oils

15 02 02 Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

13.1.2 Catalog No. of packaging waste:

15 01 10 Packaging containing residues of or contaminated by dangerous substances

13.1.3 Recommended procedure for substance/mixture waste disposal:

No data available.

13.1.4 Recommended procedure for packaging disposal:

Empty containers must be disposed of in accordance with the applicable waste legislation. After perfect cleaning, the packaging can be used as a secondary raw material for the same purpose. Recommended way of disposing of recycling, burning in a hazardous waste incinerator or storing hazardous waste.

13.1.5 Physical / chemical properties that may affect waste treatment method:

No data available.

13.1.6 Sewage disposal-relevant information:

Protect against weathering. Prevent leakage of waste into the water / soil / sewage system. In case of leakage, inform the competent authorities.

13.1.7 Other disposal recommendations:

Dispose of in accordance with applicable legislation.

SECTION 14: Transport information

	Type of transport	Land transport ADR / RID	Sea transport IMDG	Air Transport ICAO / IATA
14.1	**UN number or ID number**	There is no dangerous good in terms of transport.	There is no dangerous good in terms of transport.	There is no dangerous good in terms of transport.
14.2	**UN proper shipping name**			
14.3	**Transport hazard class(es)**			
	Classification code	-	-	-
	Labels			
14.4	**Packing group**			

14.5 Environmental hazards

Yes.

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not specified.

Other information

Type of transport	Land transport ADR / RID	Sea transport IMDG	Air Transport ICAO / IATA
Limited quantities:			
Excepted quantities:			
Transport category:		-	-
Tunnel restriction code:		-	-
Segregation group:	-		-

SECTION 15: Regulatory information

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

all as amended and including implementing regulations

Regulation (EC) No. 1272/2008 (CLP) on classification, labelling and packaging of substances and mixtures,…

Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),…

Applicable national regulations.

The product contains substance Lubricating oils, Base oil - unspecified, that is included in Annex XVII. of REACH Regulation.

15.2 Chemical safety assessment

A chemical safety assessment has been carried out for the mineral oil component.

SECTION 16: Other information

Complete text of all classifications and hazard classes referred to in SECTION 3:

Hazard class:

Acute Tox. 4 - Acute Toxicity, category 4

Aquatic Acute 1 - Acute aquatic toxicity, category 1

Aquatic Chronic 1 - Chronic (long term) aquatic hazard, category 1

Aquatic Chronic 2 - Chronic (long term) aquatic hazard, category 2

Aquatic Chronic 3 - Chronic (long term) aquatic hazard, category 3

Eye Dam. 1 - Serious eye damage, category 1

STOT RE 1 - Specific target organ toxicity (repeated exposure), category 1

Skin Corr. 1B - Skin corrosion, category 1B

Skin Sens. 1B - Skin sensitisation, category 1B

H-statements:

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H372 Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

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.

Abbreviations

ADR	Accord Dangereuses Route
CAS	Chemical Abstracts Service
DNEL	Derived no-effect level
EC50	Effect concentration for 50%
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effect level for 50%
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50%
LD50	Lethal dose for 50%
LL50	Lethal load for 50%
LOAEL	Lowest observable adverse effect level
LOEL	Lowest observable effect level
NOAEC	No observable adverse effect concentration
NOAEL	No observable adverse effect level
NOEC	No observable effect concentration
NOEL	No observable effect level
NPK-P	Maximum permissible concentration
OEL	Occupational Exposure Limit (workplace exposure limit - 8 hours / shift)
PBT	Persistent, bioacumulative and toxic

PEL	Permissible exposure limits
PNEC	Predicted no-effect concentration
RID	Regulations for the International Carriage of Dangerous Goods by Rail
STEL	Short Term Exposure Limit (short exposure - corresponds to approx. 15 min.)
VOC	Volatile organic substances
vPvB	Very persistent and very bioacumulative
WGK	Hazard classes for water (Wassergefährdungsklassen)
TRGS	German standard for the storage of hazardous substances (Technische Regeln für Gefahrstoffe)

Changes to previous version SDS:

New SDS based on Commission Regulation (EU) 2020/878. The classification has been performed by calculation method.

Instructions for training

Workers who come into contact with dangerous substances must be aware of the effects of these substances, how they are treated, and protective measures to the extent necessary. Furthermore, they must be familiar with the first aid principles, with the necessary sanitation procedures and with the procedures for disaster and accident elimination. The person handling this chemical product must be familiar with the safety rules and the data given in the safety data sheet.

Other information

The above information describes the conditions for safe handling of the product and corresponds to the current knowledge of the manufacturer and serves as instruction for the training of the persons handling the product.

The manufacturer carries guarantee the above-described properties of the product at the recommended use.

The user is responsible for determining the suitability of the product for specific purposes and adapting security measures if such application is contrary to the manufacturer's recommendations.