Safety Data Sheet

according to UK REACH Regulation

ADDINOL Eco Gear 100 M

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

1.1. Product identifier

ADDINOL Eco Gear 100 M

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

Use of the substance/mixture

Gearbox oil.
For industrial purposes only.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name:	ADDINOL Lube Oil GmbH 4609	
Street:	Am Haupttor	
Place:	D-06237 Leuna	
Telephone:	+49 (0) 3461 845-0	Telefax: +49 (0) 3461 845-555
E-mail:	info@addinol.de	
Contact person:	Application Technology	
Internet:	www.addinol.de	
Responsible Department:	ADDINOL Application Technology	

Supplier

Company name:	ETL Fluid Experts Ltd.
Street:	Grimbald Crag Road
Place:	GB-HG5 8PY Knaresborough, North Yorkshire
Telephone:	+44 (0)1423 522911
E-mail:	sales(@)etlfe.com
Internet:	https://www.etlfluidexperts.com/

1.4. Emergency telephone number:

+44 (0)1423 522911 - This number is serviced during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

GB CLP Regulation

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 an appropriate recycling or disposal facility.

Additional advice on labelling

Product is classified and labelled in accordance with EC regulations or the corresponding national laws.

2.3. Other hazards

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.
Spilled product must not leak into the ground.
Do not allow uncontrolled leakage of product into the environment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic			40 - < 60 %
	265-157-1		01-2119484627-25	
64742-57-0	Residual oils (petroleum), hydrotreated; Baseoil — unspecified			20 - < 40 %
	265-160-8		01-2119489287-22	
72623-87-1	Lubricating oils, C20-50, hydrotreated neutral oil-based			20 - < 40 %
	276-738-4		01-2119474889-13	
	Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate			0.5 - < 1 %
	947-946-9		01-2120772600-59	
	Skin Irrit. 2, Skin Sens. 1B, Aquatic Chronic 4; H315 H317 H413			
68937-96-2	Di-tert-butyl-Polysulfides			< 1 %
	273-103-3		01-2119540515-43	
	Skin Sens. 1B, Aquatic Chronic 3; H317 H412			
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene			0.3 - < 0.5 %
	270-128-1		01-2119491299-23	
	Repr. 2, Aquatic Chronic 3; H361f H412			
722503-68-6	Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., calcium salts			0.3 - < 0.5 %
	682-816-2		01-2119985162-35	
	Skin Sens. 1B; H317			
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)			< 0,40 %
	931-384-6		01-2119493620-38	
	Acute Tox. 4, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H302 H319 H317 H411			
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, Aquatic Acute 1, Aquatic Chronic 1; H360F H314 H318 H400 H410			

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	40 - < 60 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg		
64742-57-0	265-160-8	Residual oils (petroleum), hydrotreated; Baseoil — unspecified	20 - < 40 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg		
72623-87-1	276-738-4	Lubricating oils, C20-50, hydrotreated neutral oil-based	20 - < 40 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg		
68937-96-2	273-103-3	Di-tert-butyl-Polysulfides	< 1 %
	Skin Sens. 1B; H317: >= 46 - 100		
68411-46-1	270-128-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	0.3 - < 0.5 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
	931-384-6	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	< 0,40 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg Eye Irrit. 2; H319: >= 50 - 100 Skin Sens. 1; H317: >= 9,39 - 100		
121158-58-5	310-154-3	Phenol, dodecyl-, branched	< 0.1 %
	dermal: LD50 = ca. 15000 mg/kg; oral: LD50 = 2100 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10		

Further Information

DMSO-Extract < 3 %; IP 346. Classification system: The classification corresponds to the current EC lists and is completed by information from specialist literature and company information.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

After inhalation

Move victim to fresh air. Put victim at rest and keep warm. Seek medical attention if problems persist.

After contact with skin

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

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.

Rinse mouth thoroughly with water. Call a physician immediately.

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

No information available.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam. Extinguishing powder. Carbon dioxide (CO2). Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2). Sulfur oxides. Phosphorus oxides. Nitrogen oxides (NOx). carbon black.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Use water spray jet to protect personnel and to cool endangered containers. In case of fire and/or explosion do not breathe fumes. Contaminated fire-fighting water must be collected separately.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

High slip hazard because of leaking or spilled product. Remove all sources of ignition. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Avoid contact with skin, eyes and clothes.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

Other information

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

Safe handling: see section 7
Personal protection equipment: see section 8
Section 12: Ecological Information (non-mandatory)
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work in well-ventilated zones or use proper respiratory protection. Avoid oil mist. If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Wash hands before breaks and after work. Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Do not eat, drink, smoke or sneeze at the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity. Keep container tightly closed in a cool place. Keep/Store only in original container.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.
Keep away from: Oxidizing agent

Further information on storage conditions

Protect against: UV-radiation/sunlight. frost. heat.
Recommended storage temperature: 5 - 40°C

7.3. Specific end use(s)

Further information: see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic			
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
64742-57-0	Residual oils (petroleum), hydrotreated; Baseoil — unspecified			
Consumer DNEL, long-term		oral	systemic	0,74 mg/kg bw/day
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
72623-87-1	Lubricating oils, C20-50, hydrotreated neutral oil-based			
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
	Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate			
Worker DNEL, long-term		inhalation	systemic	4,93 mg/m³
Worker DNEL, long-term		dermal	systemic	1,4 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,87 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,5 mg/kg bw/day
68937-96-2	Di-tert-butyl-Polysulfides			
Worker DNEL, long-term		inhalation	systemic	3,29 mg/m³
Worker DNEL, long-term		dermal	systemic	4,67 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,58 mg/m³
Consumer DNEL, long-term		dermal	systemic	1,67 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,167 mg/kg bw/day
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene			
Worker DNEL, long-term		inhalation	systemic	0,31 mg/m³
Worker DNEL, long-term		dermal	systemic	0,44 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,08 mg/m³

Consumer DNEL, long-term	dermal	systemic	0,22 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,05 mg/kg bw/day
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)			
Worker DNEL, long-term	inhalation	systemic	4,28 mg/m³
Worker DNEL, long-term	dermal	systemic	12,5 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,09 mg/m³
Consumer DNEL, long-term	dermal	systemic	6,25 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,25 mg/kg bw/day
121158-58-5 Phenol, dodecyl-, branched			
Worker DNEL, acute	inhalation	systemic	44,18 mg/m³
Worker DNEL, long-term	dermal	systemic	0,25 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	166 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,79 mg/m³
Consumer DNEL, acute	inhalation	systemic	13,26 mg/m³
Consumer DNEL, long-term	dermal	systemic	0,075 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	50 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,075 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	1,26 mg/kg bw/day

PNEC values

CAS No	Substance
Environmental compartment	Value
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic
Secondary poisoning	9,33 mg/kg
64742-57-0	Residual oils (petroleum), hydrotreated; Baseoil — unspecified
Secondary poisoning	9,33 mg/kg
72623-87-1	Lubricating oils, C20-50, hydrotreated neutral oil-based
Secondary poisoning	9,33 mg/kg
68937-96-2	Di-tert-butyl-Polysulfides
Freshwater	0,00024 mg/l
Freshwater (intermittent releases)	0,002 mg/l
Marine water	0,000024 mg/l
Freshwater sediment	0,94 mg/kg
Marine sediment	0,094 mg/kg
Secondary poisoning	6,66 mg/kg
Micro-organisms in sewage treatment plants (STP)	4,51 mg/l
Soil	0,0181 mg/kg
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene
Freshwater	0,034 mg/l
Freshwater (intermittent releases)	0,51 mg/l
Marine water	0,003 mg/l
Freshwater sediment	0,446 mg/kg
Marine sediment	0,045 mg/kg
Secondary poisoning	0,833 mg/kg
Micro-organisms in sewage treatment plants (STP)	10 mg/l
Soil	17,6 mg/kg
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)
Freshwater	0,0024 mg/l
Freshwater (intermittent releases)	0,15 mg/l
Marine water	0,00024 mg/l
Freshwater sediment	0,0129 mg/kg
Marine sediment	0,00129 mg/kg
Secondary poisoning	10 mg/kg
Micro-organisms in sewage treatment plants (STP)	24,33 mg/l
Soil	0,00117 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

Micro-organisms in sewage treatment plants (STP)	100 mg/l
Soil	0,118 mg/kg

Additional advice on limit values

Recommended limit value for oil mist
TWA: 5 mg/m³
STEL: 10 mg/m³

The product does not contain any relevant quantities of substances with legally established exposure limitation.

8.2. Exposure controls




Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN ISO 16321

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): EN ISO 374

Duration of wearing with permanent contact: 480 min
Suitable material: NBR (Nitrile rubber).
Thickness of glove material: 0.7 mm.

Wearing time with occasional contact (splashes): 30 min
Suitable material: NBR (Nitrile rubber).
Thickness of glove material: 0.4 mm

Protect skin by using skin protective cream.

Skin protection

Wear suitable protective clothing. Change contaminated clothing. Do not put any product-impregnated cleaning rags into your trouser pockets.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Breathing protection with filter against organic gases and vapours type A - boiling point > 65°C: A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	brown
Odour:	characteristic
Odour threshold:	not determined

		Test method
Melting point/freezing point:	No data available	
Boiling point or initial boiling point and boiling range:	not determined	
Flammability:	No data available	
Lower explosion limits:	No data available	

Upper explosion limits:	No data available	
Flash point:	240 °C	DIN EN ISO 2592
Auto-ignition temperature:	not determined	
Decomposition temperature:	No data available	
pH-Value:	No data available	
Viscosity / kinematic: (at 40 °C)	100 mm²/s	ASTM D 7042
Water solubility:	virtually insoluble	

Solubility in other solvents

No data available

Partition coefficient n-octanol/water:	No data available	
Vapour pressure:	No data available	
Density (at 15 °C):	0,884 g/cm³	DIN 51757
Relative vapour density:	No data available	
Particle characteristics:	No data available	

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No data available

Self-ignition temperature

Solid:	No data available
Gas:	No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:	No data available	
Pour point:	-30 °C	ASTM D 7346

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Refer to chapter 7 No further action is necessary.

Do not overheat to avoid decomposition by heat.

10.5. Incompatible materials

Reacts with: Oxidising agent, strong

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2). Sulfur oxides. Phosphorus oxides. Nitrogen oxides (NOx). carbon black.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

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					
	oral	LD50 mg/kg	> 5000	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 mg/kg	> 5000	Rabbit	Study report (1982)	OECD Guideline 402
64742-57-0	Residual oils (petroleum), hydrotreated; Baseoil — unspecified					
	oral	LD50 mg/kg	> 5000	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 mg/kg	> 5000	Rabbit	Study report (1982)	OECD Guideline 402
72623-87-1	Lubricating oils, C20-50, hydrotreated neutral oil-based					
	oral	LD50 mg/kg	> 5000	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 mg/kg	> 5000	Rabbit	Study report (1982)	OECD Guideline 402
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene					
	oral	LD50 mg/kg	> 5000	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rat	Study report (1988)	OECD Guideline 402
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)					
	oral	LD50 mg/kg	> 2000	Rat	Study report (1995)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rabbit		
121158-58-5	Phenol, dodecyl-, branched					
	oral	LD50 mg/kg	2100	Rat	Publication (1978)	OECD Guideline 401
	dermal	LD50 mg/kg	ca. 15000	Rabbit	Study report (1968)	OECD Guideline 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.

Sensitising effects

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

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.

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.

Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

not applicable

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.
Mixture not tested.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic						
	Acute fish toxicity	LL50 mg/l	> 100	96 h	Pimephales promelas	Study report (1995)	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	>100	72 h			
	Fish toxicity	NOEC mg/l	>= 1000	14 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
64742-57-0	Residual oils (petroleum), hydrotreated; Baseoil — unspecified						
	Acute fish toxicity	LL50 mg/l	> 100	96 h	Pimephales promelas	Study report (1995)	OECD Guideline 203
	Fish toxicity	NOEC mg/l	>= 1000	14 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
72623-87-1	Lubricating oils, C20-50, hydrotreated neutral oil-based						
	Acute fish toxicity	LL50 mg/l	> 100	96 h	Pimephales promelas	Study report (1995)	OECD Guideline 203
	Fish toxicity	NOEC mg/l	>= 1000	14 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
	Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithiophosphate						
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Raphidocelis subcapitata	REACh Registration Dossier	OECD Guideline 201
	Acute bacteria toxicity	EC50 mg/l ( )	> 1000	3 h	activated sludge of a predominantly domestic sewag	REACh Registration Dossier	OECD Guideline 209
68937-96-2	Di-tert-butyl-Polysulfides						
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Raphidocelis subcapitata	Study report (2012)	OECD Guideline 201
	Acute crustacea toxicity	EL50	63 mg/l	48 h	Daphnia magna	Study report (2013)	OECD Guideline 202
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene						
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Danio rerio	Study report (1988)	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	Study report (2006)	OECD Guideline 201
	Acute crustacea toxicity	EC50	51 mg/l	48 h	Daphnia magna	Study report (2004)	OECD Guideline 202
	Fish toxicity	NOEC	10 mg/l	34 d	Danio rerio	Study report (2020)	OECD Guideline 210
	Crustacea toxicity	NOEC mg/l	4,45	21 d	Daphnia magna	Study report (2020)	OECD Guideline 211
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)						
	Acute fish toxicity	LL50 mg/l	ca. 24	96 h	Oncorhynchus mykiss	REACh Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50	6,4 mg/l	96 h	Raphidocelis subcapitata	REACh Registration Dossier	OECD Guideline 201

	Acute crustacea toxicity	EL50 mg/l	ca. 91,4	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202
	Acute bacteria toxicity	EC50 mg/l ( )	ca. 2433	3 h	activated sludge, domestic	REACh Registration Dossier	OECD Guideline 209
121158-58-5	Phenol, dodecyl-, branched						
	Acute fish toxicity	LL50	40 mg/l	96 h	Pimephales promelas	Study report (1994)	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	0,15	72 h	Desmodesmus subspicatus	Study report (2005)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,037	48 h	Daphnia magna	Study report (2005)	OECD Guideline 202
	Crustacea toxicity	NOEC mg/l	0,004	21 d	Daphnia magna	Study report (2005)	OECD Guideline 211
	Acute bacteria toxicity	EC50 mg/l ( )	> 1000	3 h	activated sludge of a predominantly industrial sew	Study report (2004)	OECD Guideline 209

12.2. Persistence and degradability

Not easily bio-degradable (according to OECD-criteria). Do not allow to enter into surface water or drains.

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
68937-96-2	Di-tert-butyl-Polysulfides	5,6
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	7,11
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	< 0,3
121158-58-5	Phenol, dodecyl-, branched	7,14

BCF

CAS No	Chemical name	BCF	Species	Source
68937-96-2	Di-tert-butyl-Polysulfides	0,006	Lepomis macrochirus	Study report (2015)
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	411	Cyprinus carpio	Study report (2000)
	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	436	Onchorhynchus mykiss	REACh Registration D
121158-58-5	Phenol, dodecyl-, branched	289	Oncorhynchus mykiss	Study report (2006)

12.4. Mobility in soil

Due to its low solubility in water the product is almost completely mechanically separated in biological waste water treatment plants.

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

No data available

Further information

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Must not be disposed of with domestic refuse. Do not allow to enter into surface water or drains.

List of Wastes Code - residues/unused products

130205 OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 05, 12 AND 19); waste engine, gear and lubricating oils; mineral-based non-chlorinated engine, gear and lubricating oils; hazardous waste

Contaminated packaging

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Dispose of waste according to applicable legislation. Packing which cannot be properly cleaned must be thrown away.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-

Inland waterways transport (ADN)

14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-

Marine transport (IMDG)

14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	-
14.2. UN proper shipping name:	-
14.3. Transport hazard class(es):	-
14.4. Packing group:	-

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Other applicable information

No dangerous good in sense of these transport regulations.

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 3, Entry 28, Entry 30, Entry 75

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3,5,6,7,8,9,10,12,15,16.

Abbreviations and acronyms

Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Eye Irrit: Eye irritation
Skin Sens: Skin sensitisation
Repr: Reproductive toxicity
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road ; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ; ASTM - American Society for the Testing of Materials; ATE - Acute Toxicity Estimates; bw - Body weight; CAO - Cargo Aircraft Only; CAS - Chemical Abstracts Service; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DNEL - Derived No-Effect Level; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); EG - European Union; EN - European standards; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n;o;s; - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; OECD - Organization for Economic Co-operation and Development; PBT - Persistent, Bioaccumulative and Toxic substance; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulation concerning the International Carriage of Dangerous Goods by Rail; RQ - Reportable Quantity; SADT - Self- Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
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.
H360F	May damage fertility.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Further Information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

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 receiver of our product is singularly responsible for adhering to existing laws and regulations.

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