

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Issue date: 11/03/2022 Version: 1.0

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

1.1. Product identifier

Product form	: Mixture
Trade name	: Lucas Synthetic SAE 5W-40 European Motor Oil
	Lucas SAE 30 Break-In Oil
	Lucas Semi-Synthetic SAE 10W-40 European Motor Oil
	Lucas Synthetic SAE 5W-30 European Motor Oil
	Lucas Semi-Synthetic SAE 5W-30 European Motor Oil
	Lucas SAE 85W-140 Heavy Duty Gear Oil
	Lucas SAE 80W-90 Heavy Duty Gear Oil
	Lucas Synthetic SAE 15W-40 Magnum CJ-4
	Lucas SAE 20W-50 Break-In Oil
	Lucas Power Steering Fluid
	Lucas Synthetic SAE 10W-60 European Motor Oil
	Lucas Semi-Synthetic SAE 15W-40 European Motor Oil
	Lucas Synthetic SAE 10W-30 European Motor Oil
	Lucas Power Steering Fluid with Conditioners
	L.O.P. Super Lube Semi-Synthetic 10w-40 Motor Oil
	L.O.P. Super Lube Semi-Synthetic 5w-30 Motor Oil
	L.O.P. Super Lube Fully Synthetic 5w-30 Motor Oil
	L.O.P. Super Lube Fully Synthetic 5w-40 Motor Oil
	Lucas SAE 75W-140 Synthetic Gear Oil
	Lucas M8 Synthetic SAE 75W-90 Marine Gear Oil
	Lucas SAE 75W-90 Synthetic Gear Oil
	Lucas Synthetic SAE 10W-40 Outboard Engine Oil
	Lucas SAE 15W-40 Magnum CI-4/SM
	Lucas Extreme Duty Outboard Engine Oil Synthetic SAE 10W-30
	Anti-Squawk/Anti-Shudder Trans & Diff Additive
	Lucas Synthetic SAE 20W-50 European Motor Oil
Product code	:

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

1.2.1. Relevant identified uses

Intended for general public Main use category Use of the substance/mixture

: Industrial use, Professional use, Consumer use

: Lubricant

1.2.2. Uses advised against

Restrictions on use

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: No additional information

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1.3. Details of the supplier of the safety data sheet

Supplier	Supplier
Lucas Oil Products UK Ltd	Lucas Oil Products Europe Ltd
Unit 4 Cunliffe Drive	Block 3 Harcourt Centre
Llangefni Industrial Estate	Harcourt Road
LL77 7JA Llangefni	Dublin 2
Anglesey - UK	Ireland
T 01248 723 666	T +44 344 225 5400
Info@LucasOil.co.uk - www.lucasoil.co.uk	info@lucasoil.eu.com www.lucasoil.eu.com

1.4. Emergency telephone number

Emergency number

: ChemTel

1-800-255-3924 (USA, Canada, Puerto Rico, US V.I.) +1-813-248-0585 (International)

Country	Organisation/Company	Address	Emergency number	Comment
Malta		Mater Dei Hospital MSD 2090 Msida	+356 2545 6508	

H412

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 Skin corrosion/irritation Not classified Serious eye damage/eye irritation Not classified

Aspiration hazard Not classified Hazardous to the aquatic environment - Chronic Hazard, Category 3

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

Adverse physicochemical, human health and environmental effects

No data 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)	:	P101 - If medical advice is needed, have product container or label at hand.
		P102 - Keep out of reach of children.
		P103 - Read carefully and follow all instructions.
		P273 - Avoid release to the environment.
		P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Unknown acute toxicity (CLP: Classification,	:	8.1% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
Labelling, Packaging.) - SDS		8.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
		8.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
Unknown hazards to the aquatic environment (CLP)	:	Contains 9.23 % of components with unknown hazards to the aquatic environment
Child-resistant fastening	:	Not applicable
Tactile warning	:	Not applicable
2.3. Other hazards		

vPvB: not yet assessed

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

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Component				
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts (68442-22-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			
tetrapropenylphenol (74499-35-7)	PBT: not relevant – no registration required vPvB: not relevant – no registration required Summary: tetrapropenylphenol is considered to clearly meet the T criterion, and is likely to meet the P and vP criteria with a reasonable degree of confidence. It does not meet the TGD B or vB criteria, and so is not considered a PBT substance according to the EU criteria.			
Phenol, dodecyl-, branched (121158-58-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			
Phenol, dodecyl-, branched (121158-58-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			
Toluene (108-88-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			
Benzene (71-43-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII			

The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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

Component	
tetrapropenylphenol(74499-35-7)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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
Phenol, dodecyl-, branched(121158-58-5)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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
Phenol, dodecyl-, branched (121158-58-5)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (KV > 20.5 cSt) substance with a Community workplace exposure limit (Note L)	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8 REACH-no: 01-2119484627- 0018	10 - 90	Carc. Not classified

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%) (Note L)	CAS-No.: 64742-55-8 EC-No.: 265-158-7 EC Index-No.: 649-468-00-3	0 - 60	Carc. Not classified Asp. Tox. 1, H304
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (DMSO <3%) (Note L)	CAS-No.: 72623-86-0 EC-No.: 276-737-9 EC Index-No.: 649-482-00-X	0 – 30	Carc. Not classified Asp. Tox. 1, H304
1-Decene, homopolymer, hydrogenated	CAS-No.: 68037-01-4 EC-No.: 212-819-2	0 – 20	Asp. Tox. 1, H304
sulfurized isobutylene	CAS-No.: 68511-50-2 EC-No.: 270-943-2	0 - 12	Aquatic Chronic 4, H413
Distillates (petroleum), hydrotreated light naphthenic (DMSO <3%) (Note L)	CAS-No.: 64742-53-6 EC-No.: 265-156-6 EC Index-No.: 649-466-00-2	0 – 10	Carc. Not classified Asp. Tox. 1, H304
Mineral oil (DMSO <3%)	CAS-No.: mixture	≤ 7.5	Asp. Tox. 1, H304
Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO <3%)	CAS-No.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6	0 - 7.5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Zinc bis[O(6-methylheptyl)] bis[O-(sec- butyl)]bis(dithiophosphate)-	CAS-No.: 93819-94-4 EC-No.: 298-577-9	< 6.25	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Isobutene-butene polymer	CAS-No.: 9003-29-6 EC-No.: 500-004-7	0 – 5.15	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Antimony, tris(dipentylcarbamodithioato-S,S')-	CAS-No.: 15890-25-2 EC-No.: 240-028-2	0 - 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Aquatic Chronic 2, H411
Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (Note L)	CAS-No.: 64742-65-0 EC-No.: 265-169-7 EC Index-No.: 649-474-00-6	0 – 4.5	Carc. Not classified Asp. Tox. 1, H304
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts	CAS-No.: 68442-22-8 EC-No.: 270-478-5	0 – 2.85	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	CAS-No.: 2215-35-2 EC-No.: 218-679-9	0 – 2.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Phosphorodithioic acid, mixed O,O-bis(1,3- dimethylbutyl and iso-Pr) esters, zinc salts	CAS-No.: 84605-29-8 EC-No.: 283-392-8	0 - <2	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs., borated	CAS-No.: 134758-95-5	0 – 1.75	Eye Irrit. 2, H319
Polybutene	CAS-No.: 9003-29-6 EC-No.: 500-004-7	≤ 1.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
bis(nonylphenyl)amine	CAS-No.: 36878-20-3 EC-No.: 253-249-4	≤ 1.5	Aquatic Chronic 4, H413

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	CAS-No.: 36878-20-3 EC-No.: 253-249-4	0 – 1.15	Aquatic Chronic 4, H413
Zinc alkyl dithiophosphate	CAS-No.: 113706-15-3	0 – 1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	CAS-No.: 68649-42-3 EC-No.: 272-028-3	0-0.6	Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
2,6-di-tert-butylphenol	CAS-No.: 128-39-2 EC-No.: 204-884-0	0 - 0.6	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Tricresylphosphate	CAS-No.: 1330-78-5 EC-No.: 215-548-8	0 - 0.6	Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Amines, C12-14-alkyl, C6-10-alkyl phosphates	CAS-No.: 68603-55-4 EC-No.: 271-663-3	0 – 0.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400
Oleylamine	CAS-No.: 112-90-3 EC-No.: 204-015-5 EC Index-No.: 612-283-00-3	0 - 0.5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
Diphenylamine	CAS-No.: 122-39-4 EC-No.: 204-539-4 EC Index-No.: 612-026-00-5	0 – 0.15	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
tetrapropenylphenol substance listed as REACH Candidate (Phenol, alkylation products (mainly in para position) with C12- rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)) substance identified as having endocrine disrupting properties	CAS-No.: 74499-35-7 EC-No.: 310-154-3 EC Index-No.: 604-092-00-9	0 – 0.15	Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Phenol, dodecyl-, branched substance listed as REACH Candidate (Phenol, alkylation products (mainly in para position) with C12- rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP))	CAS-No.: 121158-58-5 EC-No.: 310-154-3 EC Index-No.: 604-092-00-9	0 – 0.115	Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
substance identified as having endocrine disrupting properties			
Naphtha (petroleum), hydrotreated heavy (benzene < 0.1%) substance with a Community workplace exposure limit (Note P)	CAS-No.: 64742-48-9 EC-No.: 265-150-3 EC Index-No.: 649-327-00-6	0 – 0.095	Flam. Liq. 3, H226 Muta. Not classified Carc. Not classified Asp. Tox. 1, H304
Phenol, dodecyl-, branched substance listed as REACH Candidate (Phenol, alkylation products (mainly in para position) with C12- rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP))	CAS-No.: 121158-58-5 EC-No.: 310-154-3 EC Index-No.: 604-092-00-9	0 – 0.09	Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Toluene substance with a Community workplace exposure limit	CAS-No.: 108-88-3 EC-No.: 203-625-9 EC Index-No.: 601-021-00-3	0 - <0.07	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
1,2,4-trimethylbenzene substance with a Community workplace exposure limit	CAS-No.: 95-63-6 EC-No.: 202-436-9 EC Index-No.: 601-043-00-3	< 0.025	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
Benzene substance with a Community workplace exposure limit (Note E (obsolete))	CAS-No.: 71-43-2 EC-No.: 200-753-7 EC Index-No.: 601-020-00-8	< 0.015	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304
ethylbenzene substance with a Community workplace exposure limit	CAS-No.: 100-41-4 EC-No.: 202-849-4 EC Index-No.: 601-023-00-4	0 - < 0.02	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
mesitylene; 1,3,5-trimethylbenzene substance with a Community workplace exposure limit	CAS-No.: 108-67-8 EC-No.: 203-604-4 EC Index-No.: 601-025-00-5	< 0.012	Flam. Liq. 3, H226 STOT SE 3, H335 Aquatic Chronic 2, H411
1,2,3-Trimethylbenzene substance with a Community workplace exposure limit	CAS-No.: 526-73-8 EC-No.: 208-394-8	< 0.012	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Xylenes substance with a Community workplace exposure limit (Note C)	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9	< 0.012	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Naphthalene substance with a Community workplace exposure limit	CAS-No.: 91-20-3 EC-No.: 202-049-5 EC Index-No.: 601-052-00-2	< 0.011	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
cumene substance with a Community workplace exposure limit (Note C)	CAS-No.: 98-82-8 EC-No.: 202-704-5 EC Index-No.: 601-024-00-X	< 0.01	Flam. Liq. 3, H226 Carc. 2, H351 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Specific concentration limits				
Name	Product identifier	Specific concentration limits		
Zinc bis[O(6-methylheptyl)] bis[O-(sec- butyl)]bis(dithiophosphate)-	CAS-No.: 93819-94-4 EC-No.: 298-577-9	(6.25 ≤C < 100) Skin Irrit. 2, H315 (10 ≤C < 12.5) Eye Irrit. 2, H319 (12.5 ≤C < 100) Eye Dam. 1, H318		
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts	CAS-No.: 68442-22-8 EC-No.: 270-478-5	(10 ≤C < 12.5) Eye Irrit. 2, H319 (12.5 ≤C ≤ 100) Eye Dam. 1, H318		
Zinc alkyl dithiophosphate	CAS-No.: 113706-15-3	(10 ≤C < 12.5) Eye Irrit. 2, H319 (12.5 ≤C < 100) Eye Dam. 1, H318		
mesitylene; 1,3,5-trimethylbenzene	CAS-No.: 108-67-8 EC-No.: 203-604-4 EC Index-No.: 601-025-00-5	(25 ≤C ≤ 100) STOT SE 3, H335		

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note E : Substances with specific effects on human health (see Chapter 4 of Annex VI to Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23, R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word 'Also'. (obsolete)

Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO 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. This note applies only to certain complex oil-derived substances in Part 3. Note P : The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 (Table 3.1) or the S-phrases (2-)23-24-62 (Table 3.2) shall apply. This note applies only to certain complex oil-derived substances in Part 3.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after ingestion	Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after eye contact	: In case of contact, immediately flush eyes with plenty of water.
First-aid measures after skin contact	: Gently wash with plenty of soap and water.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures general	: Never give anything by mouth to an unconscious person.
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4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation

: Inhalation of vapours may cause respiratory irritation. 4.3. Indication of any immediate medical attention and special treatment needed

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Treat symptomatically.

SECTION 5: Firefighting measures			
5.1. Extinguishing media			
Suitable extinguishing media	: Carbon dioxide. Dry chemical. Foam. Water spray.		
Unsuitable extinguishing media	: Do not use a heavy water stream.		
5.2. Special hazards arising from the substance or mixture			
Fire hazard : Burning produces irritating, toxic and noxious fumes.			
5.3. Advice for firefighters			
Firefighting instructions	: Do not allow run-off from fire fighting to enter drains or water courses. Use water spray or fog for cooling exposed containers.		
Protection during firefighting	: Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing. EN469.		

SECTION 6: Accidental	release measures
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ded fior di Accidental Feledee	induction
6.1. Personal precautions, protective	ve equipment and emergency procedures
General measures	: Avoid all eye and skin contact and do not breathe vapour and mist.
6.1.1. For non-emergency personnel	
Protective equipment	: Refer to section 8.2.
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Refer to section 8.2.
Emergency procedures	: Stop leak if safe to do so. Ventilate area.
6.2. Environmental precautions	
Do not discharge into drains or the environ	ment.
6.3. Methods and material for conta	ainment and cleaning up
For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up	: Absorb and/or contain spill with inert material, then place in suitable container.
6.4. Reference to other sections	
Section 13: disposal information. Section 7	: safe handling. Section 8: personal protective equipment.
SECTION 7: Handling and stora	qe

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid all eye and skin contact and do not breathe vapour and mist. Ensure good ventilation of the work station.
Hygiene measures	 Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety procedures.
7.2. Conditions for safe storage, inclu	iding any incompatibilities
Storage conditions	: Keep container closed when not in use.
Incompatible products	: Strong acids. Strong bases. Strong oxidizers.
Heat and ignition sources	: Keep away from heat, sparks and flame.
Prohibitions on mixed storage	: Incompatible materials.
Storage area	: Store in dry, cool, well-ventilated area.
7.3. Specific end use(s)	
Lubricont	

Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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8.1.1. National occupational exposure and biological limit values

Distillates (petroleum), hydrotreated heavy paraffin	ic (DMSO < 3%) (KV > 20.5 cSt) (64742-54-7)	
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA	5 mg/m³ 8-h (inhalable)	
Naphtha (petroleum), hydrotreated heavy (benzene	< 0.1%) (64742-48-9)	
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	White spirit Type 3	
IOEL TWA [ppm]	20 ppm	
IOELV STEL (mg/m³)	290 mg/m³	
IOELV STEL (ppm)	50 ppm	
Notes	Skin. (Year of adoption 2007)	
Regulatory reference	SCOEL Recommendations	
1,2,4-trimethylbenzene (95-63-6)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	1,2,4-Trimethylbenzene	
IOEL TWA	100 mg/m ³	
IOEL TWA [ppm]	20 ppm	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	
mesitylene; 1,3,5-trimethylbenzene (108-67-8)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Mesitylene (Trimethylbenzenes)	
IOEL TWA	100 mg/m³	
IOEL TWA [ppm]	20 ppm	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	
1,2,3-Trimethylbenzene (526-73-8)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	1,2,3-Trimethylbenzene	
IOEL TWA	100 mg/m ³	
IOEL TWA [ppm]	20 ppm	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	
Xylenes (1330-20-7)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Xylene, mixed isomers, pure	
IOEL TWA	221 mg/m ³	
IOEL TWA [ppm]	50 ppm	
IOELV STEL (mg/m ³)	442 mg/m ³	

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Vidence (4000-00-7)	
Xylenes (1330-20-7)	
IOELV STEL (ppm)	100 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
ethylbenzene (100-41-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylbenzene
IOEL TWA	442 mg/m ³
IOEL TWA [ppm]	100 ppm
IOELV STEL (mg/m³)	884 mg/m³
IOELV STEL (ppm)	200 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Naphthalene (91-20-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Naphthalene
IOEL TWA	50 mg/m³
IOEL TWA [ppm]	10 ppm
Notes	(Year of adoption 2010)
Regulatory reference	COMMISSION DIRECTIVE 91/322/EEC; SCOEL Recommendations
cumene (98-82-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Phenylpropane (Cumene)
IOEL TWA	100 mg/m ³
IOEL TWA [ppm]	10 ppm
IOELV STEL (mg/m³)	250 mg/m³
IOELV STEL (ppm)	50 ppm
Notes	Skin. During exposure monitoring, account should be taken of relevant biological monitoring values as suggested by the Scientific Committee on Occupational Exposure Limits for Chemicals Agents (SCOEL)
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831
Benzene (71-43-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Benzene
IOEL TWA	3.25 mg/m ³
IOEL TWA [ppm]	1 ppm

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Benzene (71-43-2)		
Notes	Skin	
Regulatory reference	DIRECTIVE (EU) 2019/130 (amending Directive 2004/37/EC)	
EU - Binding Occupational Exposure Limit (BOEL)		
Local name	Benzene	
BOEL TWA	3.25 mg/m³ (Limit value until 5 April 2024) 1.65 mg/m³ (Limit value from 5 April 2024 until 5 April 2026) 0.66 mg/m³ (Limit value from 5 April 2026)	
BOEL TWA [ppm]	1 ppm (Limit value until 5 April 2024) 0.5 ppm (Limit value from 5 April 2024 until 5 April 2026) 0.2 ppm (Limit value from 5 April 2026)	
Notes	Skin (Substantial contribution to the total body burden via dermal exposure possible)	
Regulatory reference	DIRECTIVE (EU) 2022/431 (amending Directive 2004/37/EC)	
EU - Biological Limit Value (BLV)		
Local name	Benzene	
BLV	28 μg/l Parameter: benzene - Medium: blood - Sampling time: immediately end of shift 46 μg/g creatinine Parameter: phenylmercapturic - Medium: urine - Sampling time: end of exposure/shift	
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs	
Toluene (108-88-3)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Toluene	
IOEL TWA	192 mg/m³	
IOEL TWA [ppm]	50 ppm	
IOELV STEL (mg/m ³)	384 mg/m ³	
IOELV STEL (ppm)	100 ppm	
Notes	Skin	
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC	

8.1.2. Recommended monitoring procedures

No data available

8.1.3. Air contaminants formed

No data available

8.1.4. DNEL and PNEC

No data available

8.1.5. Control banding

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

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Avoid splashing. Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

Eye protection:

In case of splashing or aerosol production: protective goggles. EN166

8.2.2.2. Skin protection

Hand protection:

Wear suitable gloves. nitrile rubber gloves. EN374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Approved respirator. EN 136. EN 143

8.2.2.4. Thermal hazards

No data available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Prevent leakage or spillage. Prevent contaminated water run-off.

Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	amber.
Odour	:	petroleum.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Not available
Explosive limits	:	Not available
Lower explosion limit	:	Not available
Upper explosive limit (UEL)	:	Not available
Flash point	:	> 100 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
рН	:	Not available
Viscosity, kinematic	:	> 20 mm²/s @ 40 °C
Solubility	:	Not available
Log Kow	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50 °C	:	Not available
Density	:	≈ 7.25 lb/gal
Relative density	:	≈ 0.9
Relative vapour density at 20 °C	:	Not available
Particle size	:	Not applicable
Particle size distribution	:	Not applicable
Particle shape	:	Not applicable
Particle aspect ratio	:	Not applicable

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Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No data available

9.2.2. Other safety characteristics

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Hydrocarbon. Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

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

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

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (KV > 20.5 cSt) (64742-54-7)

Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%) (64742-55-8)			
Antimony, tris(dipentylcarbamodithioato-S,S')- (15890-25-2)			
1-Decene, homopolymer, hydrogenated (68037-01-4)			

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1-Decene, homopolymer, hydrogenated (68037-01-4)		
LC50 Inhalation rat (dust/mist)	> 5.2 mg/l/4h	
sulfurized isobutylene (68511-50-2)		
LD50 Oral rat	8600 mg/kg	
Oleylamine (112-90-3)		
LD50 Oral rat	1689 mg/kg	
Naphtha (petroleum), hydrotreated heavy (benzene	e < 0.1%) (64742-48-9)	
LD50 Oral rat	> 5000 mg/kg	
LD50 Dermal rabbit	> 2000 mg/kg	
LC50 Inhalation rat	> 5610 mg/m ³	
1,2,4-trimethylbenzene (95-63-6)		
LD50 Oral rat	3415 mg/kg	
LD50 Dermal rat	3440 mg/kg	
LD50 Dermal rabbit	> 3160 mg/kg Source: International Uniform ChemicaL Information Database	
LC50 Inhalation rat	10.2 mg/l air Animal: rat, Remarks on results: other:	
LC50 Inhalation rat [ppm]	954 ppm	
LC50 Inhalation rat (vapours)	18 mg/l Source: Corporate Solution From Thomson Micromedex	
mesitylene; 1,3,5-trimethylbenzene (108-67-8)		
LD50 Oral rat	5000 mg/kg	
LD50 Dermal rat	> 4 ml/kg	
LC50 Inhalation rat	24000 mg/m ³	
Xylenes (1330-20-7)		
LD50 Oral rat	> 3500 mg/kg	
LD50 Dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male, Remarks on results: other:	
LC50 Inhalation rat [ppm]	5922 ppm	
ethylbenzene (100-41-4)		
LD50 Oral rat	3500 mg/kg	
LD50 Dermal rabbit	17.8 ml/kg	
LC50 Inhalation rat [ppm]	< 1500 ppm	
Naphthalene (91-20-3)		
LD50 Oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)	
LD50 Dermal rabbit	2500 mg/kg Source: ChemIDplus	
LC50 Inhalation rat	> 0.4 mg/l air Animal: rat, Guideline: other:, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Remarks on results: other:	

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Naphthalene (91-20-3)		
LC50 Inhalation rat (vapours)	> 0.4 mg/l Source: ECHA	
Distillates (petroleum), solvent-dewaxed heavy para	affinic (DMSO <3%) (64742-65-0)	
LD50 Oral rat	> 5000 mg/kg	
LD50 Dermal rabbit	> 2000 mg/kg	
LC50 Inhalation rat	2.18 mg/l	
zinc 0,0,0',0'-tetrakis(1,3-dimethylbutyl) bis(phosp	phorodithioate) (2215-35-2)	
LD50 Oral rat	2000 – 5000 mg/kg	
LD50 Dermal rabbit	> 2000 mg/kg	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethy	lbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
LD50 Oral rat	3100 mg/kg	
LD50 Dermal rat	> 2002 mg/kg	
LC50 Inhalation rat	> 2.3 mg/l/4h	
Polybutene (9003-29-6)		
LD50 Oral rat	> 34600 mg/kg	
LD50 Dermal rabbit	> 10250 mg/kg	
LC50 Inhalation rat	> 17.3 mg/l/4h	
Amines, C12-14-alkyl, C6-10-alkyl phosphates (68603-55-4)		
LD50 Oral rat	500 (500 – 1000) mg/kg	
cumene (98-82-8)		
LD50 Oral rat	4000 mg/kg	
LD50 Dermal rabbit	10600 mg/kg	
LC50 Inhalation rat	22.1 mg/l	
LC50 Inhalation rat [ppm]	4510 ppm/4h	
Distillates (petroleum), solvent-dewaxed heavy para	affinic (DMSO < 3%) (64742-65-0)	
LD50 Oral rat	> 5000 mg/kg	
LD50 Dermal rabbit	> 2000 mg/kg	
Zinc alkyl dithiophosphate (113706-15-3)		
LD50 Oral rat	2600 mg/kg	
LD50 Dermal rabbit	> 3160 mg/kg	
Benzene (71-43-2)		
LD50 Oral rat	5970 mg/kg OECD Guideline 401 (Acute Oral Toxicity)	
LD50 Dermal rabbit	> 9.4 mg/kg OECD Guideline 402 (Acute Dermal Toxicity)	
LC50 Inhalation rat	43.7 mg/l/4h OECD Guideline 403 (Acute Inhalation Toxicity)	

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Toluene (108-88-3)			
LD50 Oral rat	5580 mg/kg EU Method B.		
LD50 Dermal rabbit	> 5000 mg/kg Source: ECHA		
LC50 Inhalation rat	> 20 mg/l/4h OECD Guideline 403		
LC50 Inhalation rat (vapours)	> 20 mg/l Source: ECHA		
Isobutene-butene polymer (9003-29-6)			
LD50 Oral rat	> 34600 mg/kg		
LD50 Dermal rabbit	> 10250 mg/kg		
LC50 Inhalation rat	> 17300 mg/m ³		
Phosphorodithioic acid, mixed O,O-bis(2-ethylhex	yl and iso-Bu) esters, zinc salts (68442-22-8)		
LD50 Oral rat	3600 mg/kg		
LD50 Dermal rabbit	> 20000 mg/kg		
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)			
LD50 Oral rat	26100 mg/kg		
Distillates (petroleum), hydrotreated light naphthenic (DMSO <3%) (64742-53-6)			
LD50 Oral rat	> 5000 mg/kg		
LD50 Dermal rabbit	> 2000 mg/kg		
LC50 Inhalation rat	> 5.53 mg/l/4h		
Tricresylphosphate (1330-78-5)			
LD50 Oral rat	> 20000 mg/kg		
LC50 Inhalation rat	> 11.1 mg/l 1 h		
Lubricating oils (petroleum), C15-30, hydrotreated	neutral oil-based (DMSO <3%) (72623-86-0)		
LD50 Oral rat	> 5000 mg/kg bodyweight		
LD50 Dermal rabbit	> 2000 mg/kg bw/day		
Phenol, dodecyl-, branched (121158-58-5)			
LD50 Oral rat	> 2000 mg/kg bodyweight		
LD50 Dermal rabbit	> 2000 mg/kg bodyweight		
bis(nonylphenyl)amine (36878-20-3)	bis(nonylphenyl)amine (36878-20-3)		
LD50 Oral rat	> 5000 mg/kg		
LD50 Dermal rat	> 2000 mg/kg		
Unknown acute toxicity (CLP: Classification, : Labelling, Packaging.) - SDS	 8.1% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 8.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 8.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) 		
Skin corrosion/irritation : Serious eye damage/irritation : Respiratory or skin sensitisation : Germ cell mutagenicity :	Not classified. (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met)		

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Carcinogenicity :	Not classified (Based on available data, the classification criteria are not met)
Xylenes (1330-20-7)	
IARC group	3 - Not classifiable
ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans
Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
Diphenylamine (122-39-4)	
IARC group	2B - Possibly carcinogenic to humans
cumene (98-82-8)	
IARC group	2B - Possibly carcinogenic to humans
Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
Toluene (108-88-3)	1
IARC group	3 - Not classifiable
Reproductive toxicity :	Not classified (Based on available data, the classification criteria are not met)
Naphthalene (91-20-3)	
LOAEL (animal/female, F1)	450 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:
STOT-single exposure :	Not classified (Based on available data, the classification criteria are not met)
Oleylamine (112-90-3)	
STOT-single exposure	May cause respiratory irritation.
1,2,4-trimethylbenzene (95-63-6)	
STOT-single exposure	May cause respiratory irritation.
mesitylene; 1,3,5-trimethylbenzene (108-67-8)	
STOT-single exposure	May cause respiratory irritation.
1,2,3-Trimethylbenzene (526-73-8)	
STOT-single exposure	May cause respiratory irritation.
cumene (98-82-8)	·
STOT-single exposure	May cause respiratory irritation.
Toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure :	Not classified (Based on available data, the classification criteria are not met)
Oleylamine (112-90-3)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

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1,2,4-trimethylbenzene (95-63-6)		
NOAEL (oral, rat, 90 days)	600 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity Study in Rodents)	
NOAEC (inhalation, rat, vapour, 90 days)	1.8 mg/l air Animal: rat, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)	
Xylenes (1330-20-7)		
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90- Day Oral Toxicity)	
ethylbenzene (100-41-4)		
NOAEL (oral, rat, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28- Day Oral Toxicity Study in Rodents)	
STOT-repeated exposure	May cause damage to organs (hearing organs) through prolonged or repeated exposure.	
Naphthalene (91-20-3)		
LOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity Study in Rodents)	
LOAEC (inhalation, rat, vapour, 90 days)	0.011 mg/l air Animal: rat, Guideline: EPA OPP 82-4 (90-Day Inhalation Toxicity), Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity Study in Rodents)	
NOAEL (dermal, rat/rabbit, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)	
Diphenylamine (122-39-4)		
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.	
Benzene (71-43-2)		
LOAEL (oral, rat, 90 days)	25 mg/kg bodyweight/day OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)	
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight/day OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)	
NOAEC (inhalation, rat, gas, 90 days)	30 ppmv/6h/day OECD Guideline 412 / 413	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.	
Toluene (108-88-3)		
LOAEC (inhalation, rat, gas, 90 days)	1250 ppmv/6h/day	
NOAEL (oral, rat, 90 days)	625 mg/kg bodyweight/day EU Method B.26.	
NOAEC (inhalation, rat, gas, 90 days)	300 ppmv/6h/day OECD Guideline 453	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.	
Distillates (petroleum), hydrotreated light naphthenic (DMSO <3%) (64742-53-6)		
LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day	
NOAEL (subchronic, oral, animal/male, 90 days)	< 125 mg/kg bodyweight NOAEL for heavy paraffinic distillate aromatic extract could not be identified and is less than 125 mg/kg/day when administered orally.	
Aspiration hazard	Not classified. (Based on available data, the classification criteria are not met)	

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Lucas Synthetic SAE 5W-40 European Motor Oil, Lucas SAE 30 Break-In Oil, Lucas Semi-Synthetic SAE 10W-40 European Motor Oil, Lucas Synthetic SAE 5W-30 European Motor Oil, Lucas SAE 85W-140 Heavy Duty Gear Oil, Lucas SAE 80W-90 Heavy Duty Gear Oil, Lucas Synthetic SAE 15W-40 Magnum CJ-4, Lucas SAE 20W-50 Break-In Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-30 European Motor Oil, Lucas Power Steering Fluid with Conditioners, L.O.P. Super Lube Semi-Synthetic 10w-40 Motor Oil, L.O.P. Super Lube Semi-Synthetic 5w-30 Motor Oil, L.O.P. Super Lube Semi-Synthetic 5w-30 Motor Oil, Lucas M8 Synthetic SAE 75W-90 Marine Gear Oil, Lucas SAE 75W-90 Synthetic Gear Oil, Lucas SAE 10W-30, Anti-Squawk/Anti-Shudder Trans & Diff Additive, Lucas Synthetic SAE 20W-50 European Motor Oil

Viscosity, kinematic

> 20 mm²/s @ 40 °C

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Component	
tetrapropenylphenol(74499-35-7)	The substance is identified for having endocrine disrupting properties but there is no additional data available
Phenol, dodecyl-, branched(121158-58-5)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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
Phenol, dodecyl-, branched (121158-58-5)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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

11.2.2. Other information

SECTION 12: Ecological information

12.1. Toxicity

Unknown hazards to the aquatic environment (CLP) : Hazardous to the aquatic environment, short-term : (acute)	Harmful to aquatic life with long lasting effects. Contains 9.23 % of components with unknown hazards to the aquatic environment Not classified (Based on available data, the classification criteria are not met) Harmful to aquatic life with long lasting effects.	
Distillates (petroleum), hydrotreated heavy paraffin	ic (DMSO < 3%) (KV > 20.5 cSt) (64742-54-7)	
EC50 crustacea	> 10000 mg/l	
Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%) (64742-55-8)		
LC50 fish 1	> 100 mg/l	
1-Decene, homopolymer, hydrogenated (68037-01-4)		
LC50 fish 1	> 750 mg/l	
EC50 crustacea	190 mg/l	
NOEC (acute)	1000 mg/l	
sulfurized isobutylene (68511-50-2)		
LC50 fish 1	< 1000 mg/l	
EC50 crustacea	1000 mg/l	

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sulfurized isobutylene (68511-50-2)			
EC50 other aquatic organisms 1	29 (29 – 39) mg/l		
ErC50 algae	> 100 mg/l		
NOEC (acute)	< 1000 mg/l		
NOEC chronic crustacea	1000 mg/l		
NOEC chronic algae	10 mg/l		
Oleylamine (112-90-3)			
LC50 fish 1	0.11 mg/l		
EC50 crustacea	0.011 mg/l		
NOEC chronic algae	≤ 0.01 mg/l		
Naphtha (petroleum), hydrotreated heavy	(benzene < 0.1%) (64742-48-9)		
LC50 fish 1	8.2 mg/l		
LC50 other aquatic organisms 1	2.6 mg/l Source: IUCLID		
1,2,4-trimethylbenzene (95-63-6)			
LC50 fish 1	7.72 mg/l		
LC50 other aquatic organisms 1	3.6 mg/l		
EC50 crustacea	6.14 mg/I Source: International Uniform ChemicaL Information Database		
EC50 other aquatic organisms 1	2.356 mg/l		
EC50 96h - Algae [1]	2356 mg/l Test organisms (species): other:		
mesitylene; 1,3,5-trimethylbenzene (108-6	7-8)		
LC50 fish 1	12.52 mg/l		
LC50 other aquatic organisms 1	6 mg/l		
EC50 other aquatic organisms 1	25 mg/l		
1,2,3-Trimethylbenzene (526-73-8)			
LC50 fish 1	2.792 mg/l Source: Ecological Structure Activity Relationships		
EC50 96h - Algae [1]	2.29 mg/l Source: Ecological Structure Activity Relationships		
Xylenes (1330-20-7)	Xylenes (1330-20-7)		
LC50 fish 1	2.6 mg/l Source: ECHA		
EC50 crustacea	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia		
LOEC (chronic)	3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'		
ethylbenzene (100-41-4)			
LC50 fish 1	5.1 mg/l		
EC50 other aquatic organisms 1	7.7 mg/l		

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ethylbenzene (100-41-4)		
EC50 72h - Algae [1]	5.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 72h - Algae [2]	4.9 mg/l Test organisms (species): Skeletonema costatum	
EC50 96h - Algae [1]	3.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 96h - Algae [2]	7.7 mg/l Test organisms (species): Skeletonema costatum	
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'	
NOEC (acute)	3.3 mg/l	
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'	
Naphthalene (91-20-3)		
LC50 fish 1	1.6 mg/l	
LC50 - Fish [2]	1 (1 – 6.5) mg/l Pimpephales promelas	
EC50 crustacea	2.16 mg/l	
EC50 other aquatic organisms 1	33 mg/l	
LOEC (acute)	3.2 mg/l	
NOEC (acute)	1.8 mg/l	
NOEC (chronic)	0.59 mg/l Test organisms (species): Daphnia pulex Duration: '125 d'	
Diphenylamine (122-39-4)		
LC50 fish 1	4.14 ppm	
EC50 crustacea	2.46 mg/l	
EC50 other aquatic organisms 1	0.36 mg/l	
Phosphorodithioic acid, mixed O,O-bis(1,3	B-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
LC50 fish 1	4.5 mg/l	
EC50 crustacea	23 mg/l	
ErC50 algae	21 mg/l	
NOEC (acute)	1.8 mg/l	
NOEC chronic crustacea	0.8 mg/l	
Polybutene (9003-29-6)		
LC50 fish 1	> 1000 mg/l	
EC50 crustacea	> 1000 mg/l	
Amines, C12-14-alkyl, C6-10-alkyl phosphates (68603-55-4)		
LC50 fish 1	1 (1 – 10) mg/l	
cumene (98-82-8)		
LC50 fish 1	4.8 mg/l	

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cumene (98-82-8)		
LC50 - Fish [2]	4.8 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)	
EC50 crustacea	2.14 mg/l Test organisms (species): Daphnia magna	
EC50 other aquatic organisms 1	2.14 mg/l	
EC50 72h - Algae [1]	2.01 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
EC50 72h - Algae [2]	1.29 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
ErC50 algae	2.01 mg/l Source: ECHA	
NOEC (acute)	1.9 mg/l	
NOEC (chronic)	0.35 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC chronic fish	0.38 mg/l Test organisms (species): other: Duration: '28 d'	
Zinc alkyl dithiophosphate (113706-15-3)		
LC50 fish 1	4.5 mg/l 96 h Rainbow trout	
tetrapropenylphenol (74499-35-7)		
NOEC (chronic)	0.002 mg/l	
Benzene (71-43-2)		
LC50 fish 1	5.3 mg/l OECD Guideline 203 (Fish, Acute Toxicity Test)	
EC50 crustacea	10 mg/I OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)	
EC50 72h - Algae [1]	29 mg/l Source: NITE	
ErC50 algae	100 mg/l OECD Guideline 201 (Alga, Growth Inhibition Test)	
LOEC (chronic)	1.6 mg/l 32 d	
NOEC chronic crustacea	3 mg/l	
Toluene (108-88-3)		
LC50 fish 1	5.5 mg/l	
EC50 crustacea	3.78 mg/l Source: ECHA	
EC50 - Crustacea [2]	3.78 mg/l	
ErC50 algae	134 mg/l	
LOEC (chronic)	2.77 mg/l	
NOEC chronic fish	1.39 mg/l	
NOEC chronic crustacea	0.74 mg/l	
Isobutene-butene polymer (9003-29-6)		
LC50 fish 1	> 1000 mg/l	
EC50 crustacea	> 1000 mg/l	

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Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)		
LC50 fish 1	10 (10 – 35) mg/l Pimephales promelas OECD GDL 203 (water accomodated fraction)	
EC50 crustacea	1 (1 – 1.5) mg/I OECD GDL 202 (water accomodated fraction)	
NOEC (acute)	10 mg/l Pimephales promelas OECD GDL 203 (water accomodated fraction)	
NOEC chronic crustacea	< 1 mg/l	
Tricresylphosphate (1330-78-5)		
LC50 fish 1	0.6 mg/l 4 d	
EC50 crustacea	0.146 mg/l 2 d	
EC50 72h - Algae [1]	0.4042 mg/l 3 d	
NOEC (acute)	0.56 mg/l 4 d	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (DMSO <3%) (72623-86-0)		
LC50 fish 1	> 100 mg/l	
EC50 crustacea	> 10000 mg/l	
NOEC (acute)	> 1000 mg/l	
bis(nonylphenyl)amine (36878-20-3)		
LC50 fish 1	> 100 mg/l	

12.2. Persistence and degradability

Lucas Synthetic SAE 5W-40 European Motor Oil, Lucas SAE 30 Break-In Oil, Lucas Semi-Synthetic SAE 10W-40 European Motor Oil, Lucas Synthetic SAE 5W-30 European Motor Oil, Lucas SAE 85W-140 Heavy Duty Gear Oil, Lucas SAE 80W-90 Heavy Duty Gear Oil, Lucas Synthetic SAE 15W-40 Magnum CJ-4, Lucas SAE 20W-50 Break-In Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-30 European Motor Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-30 European Motor Oil, Lucas Power Steering Fluid with Conditioners, L.O.P. Super Lube Semi-Synthetic 10w-40 Motor Oil, L.O.P. Super Lube Semi-Synthetic 5w-30 Motor Oil, L.O.P. Super Lube Fully Synthetic 5w-30 Motor Oil, L.O.P. Super Lube Semi-Synthetic 5w-40 Motor Oil, Lucas SAE 75W-140 Synthetic Gear Oil, Lucas M8 Synthetic SAE 75W-90 Marine Gear Oil, Lucas SAE 75W-90 Synthetic Gear Oil, Lucas SAE 10W-30, Anti-Squawk/Anti-Shudder Trans & Diff Additive, Lucas Synthetic SAE 20W-50 European Motor Oil

Persistence and degradability	May cause long-term adverse effects in the environment.	
Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%) (64742-55-8)		
Persistence and degradability	Not readily biodegradable.	
1-Decene, homopolymer, hydrogenated (68037-01-4)		
Persistence and degradability	Readily biodegradable.	
mesitylene; 1,3,5-trimethylbenzene (108-67-8)		
Persistence and degradability	Not readily biodegradable.	
Biodegradation	0 % O2 consumption, 192h	
ethylbenzene (100-41-4)		
Persistence and degradability	Not established.	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO <3%) (64742-65-0)		
Persistence and degradability	Not established.	

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Diphenylamine (122-39-4)		
Persistence and degradability	Not established.	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)		
Biodegradation	1.5 % 28 days	
Polybutene (9003-29-6)		
Persistence and degradability	This product is not expected to be biodegradable.	
Amines, C12-14-alkyl, C6-10-alkyl phosphates (68603-55-4)		
Biodegradation	62 %	
cumene (98-82-8)		
Persistence and degradability	May cause long-term adverse effects in the environment.	
Distillates (petroleum), solvent-dewaxed heavy para	affinic (DMSO < 3%) (64742-65-0)	
Persistence and degradability	Not established.	
Zinc alkyl dithiophosphate (113706-15-3)		
Persistence and degradability Not readily biodegradable.		
tetrapropenylphenol (74499-35-7)		
Persistence and degradability	Product persists.	
Benzene (71-43-2)		
Persistence and degradability	Readily biodegradable.	
Toluene (108-88-3)		
Persistence and degradability	Readily biodegradable.	
Isobutene-butene polymer (9003-29-6)		
Persistence and degradability	This product is not expected to be biodegradable.	
12.3. Bioaccumulative potential		

12.3. Bioaccumulative potential

Lucas Synthetic SAE 5W-40 European Motor Oil, Lucas SAE 30 Break-In Oil, Lucas Semi-Synthetic SAE 10W-40 European Motor Oil, Lucas Synthetic SAE 5W-30 European Motor Oil, Lucas SAE 80W-90 Heavy Duty Gear Oil, Lucas SAE 15W-40 Magnum CJ-4, Lucas SAE 20W-50 Break-In Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-30 European Motor Oil, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 Magnum CJ-4, Lucas SAE 20W-50 Break-In Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-30 European Motor Oil, Lucas Power Steering Fluid with Conditioners, L.O.P. Super Lube Semi-Synthetic 10w-40 Motor Oil, L.O.P. Super Lube Semi-Synthetic 5w-30 Motor Oil, L.O.P. Super Lube Semi-Synthetic Gear Oil, Lucas Matter SAE 75W-140 Synthetic Gear Oil, Lucas SAE 75W-90 Marine Gear Oil, Lucas SAE 75W-90 Synthetic Gear Oil, Lucas SAE 10W-30, Anti-Squawk/Anti-Shudder Trans & Diff Additive, Lucas Synthetic SAE 20W-50 European Motor Oil

Bioaccumulative potential	Not established.	
1-Decene, homopolymer, hydrogenated (68037-01-4)		
Bioaccumulative potential Not expected to bioaccumulate.		
sulfurized isobutylene (68511-50-2)		
Log Pow	> 3	

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Oleylamine (112-90-3)			
Log Pow	7.5		
Naphtha (petroleum), hydrotreated heavy (benzer	Naphtha (petroleum), hydrotreated heavy (benzene < 0.1%) (64742-48-9)		
Log Pow	2.1 – 6 Source: IUCLID		
1,2,4-trimethylbenzene (95-63-6)			
Log Pow	3.78 Source: National Library of Medicine/Hazardous Substances Data Bank		
mesitylene; 1,3,5-trimethylbenzene (108-67-8)			
BCF fish 1	23 – 382 concentration 150ppb		
BCF fish 2	42 – 328 concentration 15ppb		
Log Pow	3.42		
1,2,3-Trimethylbenzene (526-73-8)			
Log Pow	3.7 Source: International Chemical Safety Cards		
Xylenes (1330-20-7)			
BCF fish 1	1.3 mg/l		
Log Pow	3.15 Source: HSDB		
Bioaccumulative potential	Not expected to bioaccumulate.		
ethylbenzene (100-41-4)			
Log Pow	3.15 Source: HSDB		
Bioaccumulative potential	Not established.		
Naphthalene (91-20-3)			
BCF fish 1	≥ 427 (427 – 1158)		
Log Pow	3.3 Source: hsbd		
Distillates (petroleum), solvent-dewaxed heavy pa	araffinic (DMSO <3%) (64742-65-0)		
Bioaccumulative potential	Not established.		
Diphenylamine (122-39-4)			
Bioaccumulative potential	Not established.		
Phosphorodithioic acid, mixed O,O-bis(1,3-dimet	nylbutyl and iso-Pr) esters, zinc salts (84605-29-8)		
Log Kow	0.56		
Polybutene (9003-29-6)			
Bioaccumulative potential	This product is not bioaccumulating.		
cumene (98-82-8)			
Log Pow	3.66 Source: HSDB		
Bioaccumulative potential	Not established.		
Distillates (petroleum), solvent-dewaxed heavy pa	araffinic (DMSO < 3%) (64742-65-0)		
Bioaccumulative potential	Not established.		

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Zinc alkyl dithiophosphate (113706-15-3)		
Log Pow	0.9	
tetrapropenylphenol (74499-35-7)		
Log Pow	7.17	
Benzene (71-43-2)		
BCF fish 1	3.5 – 4.4	
Bioconcentration factor (BCF REACH)	0	
Log Pow	1.83	
Toluene (108-88-3)		
Bioconcentration factor (BCF REACH)	90	
Log Pow	2.73 Source: HSDB	
Log Kow	2.73	
Isobutene-butene polymer (9003-29-6)		
Bioaccumulative potential	This product is not bioaccumulating.	
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts (68442-22-8)		
Log Pow	1.67	
Tricresylphosphate (1330-78-5)		
Log Kow	5.93	

12.4. Mobility in soil

Lucas Synthetic SAE 5W-40 European Motor Oil, Lucas SAE 30 Break-In Oil, Lucas Semi-Synthetic SAE 10W-40 European Motor Oil, Lucas Synthetic SAE 5W-30 European Motor Oil, Lucas SAE 85W-140 Heavy Duty Gear Oil, Lucas SAE 80W-90 Heavy Duty Gear Oil, Lucas Synthetic SAE 15W-40 Magnum CJ-4, Lucas SAE 20W-50 Break-In Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 Magnum CJ-4, Lucas SAE 20W-50 Break-In Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-30 European Motor Oil, Lucas Power Steering Fluid with Conditioners, L.O.P. Super Lube Semi-Synthetic 10w-40 Motor Oil, L.O.P. Super Lube Semi-Synthetic 5w-30 Motor Oil, L.O.P. Super Lube Fully Synthetic 5w-30 Motor Oil, L.O.P. Super Lube Semi-Synthetic Gear Oil, Lucas M8 Synthetic SAE 75W-90 Marine Gear Oil, Lucas SAE 75W-90 Synthetic Gear Oil, Lucas SAE 10W-30, Anti-Squawk/Anti-Shudder Trans & Diff Additive, Lucas Synthetic SAE 20W-50 European Motor Oil

Ecology - soil	No data available.	
1,2,3-Trimethylbenzene (526-73-8)		
Mobility in soil 630 Source: National Library of Medicine/Hazardous Substances Data Bank		
Polybutene (9003-29-6)		
Ecology - soil This material has low solubility and floats and is not expected to partition to water.		
Zinc alkyl dithiophosphate (113706-15-3)		
Ecology - soil	Absorbs to soil particles and will not be mobile.	
Isobutene-butene polymer (9003-29-6)		
Ecology - soil	This material has low solubility and floats and is not expected to partition to water.	

12.5. Results of PBT and vPvB assessment

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Lucas Synthetic SAE 5W-40 European Motor Oil, Lucas SAE 30 Break-In Oil, Lucas Semi-Synthetic SAE 10W-40 European Motor Oil, Lucas Synthetic SAE 5W-30 European Motor Oil, Lucas SAE 85W-140 Heavy Duty Gear Oil, Lucas SAE 80W-90 Heavy Duty Gear Oil, Lucas Synthetic SAE 15W-40 Magnum CJ-4, Lucas SAE 20W-50 Break-In Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-30 European Motor Oil, Lucas Power Steering Fluid with Conditioners, L.O.P. Super Lube Semi-Synthetic 10w-40 Motor Oil, L.O.P. Super Lube Semi-Synthetic 5w-30 Motor Oil, L.O.P. Super Lube Fully Synthetic 5w-30 Motor Oil, L.O.P. Super Lube SAE 75W-140 Synthetic Gear Oil, Lucas SAE 75W-90 Marine Gear Oil, Lucas SAE 75W-90 Synthetic Gear Oil, Lucas SAE 10W-40 Outboard Engine Oil, Lucas SAE 15W-40 Magnum CI-4/SM, Lucas Extreme Duty Outboard Engine Oil Synthetic SAE 10W-30, Anti-Squawk/Anti-Shudder Trans & Diff Additive, Lucas Synthetic SAE 20W-50 European Motor Oil

vPvB: not yet assessed

Component

component	
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts (68442-22-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
tetrapropenylphenol (74499-35-7)	PBT: not relevant – no registration required vPvB: not relevant – no registration required Summary: tetrapropenylphenol is considered to clearly meet the T criterion, and is likely to meet the P and vP criteria with a reasonable degree of confidence. It does not meet the TGD B or vB criteria, and so is not considered a PBT substance according to the EU criteria.
Phenol, dodecyl-, branched (121158-58-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Phenol, dodecyl-, branched (121158-58-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Toluene (108-88-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Benzene (71-43-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Component	
tetrapropenylphenol(74499-35-7)	The substance is identified for having endocrine disrupting properties but there is no additional data available
Phenol, dodecyl-, branched(121158-58-5)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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
Phenol, dodecyl-, branched (121158-58-5)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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
12.7. Other adverse effects	
Additional information	: No data available

 SECTION 13: Disposal considerations

 13.1. Waste treatment methods

 Waste disposal recommendations
 : Dispose in a safe manner in accordance with local/national regulations.

 European List of Waste (LoW) code
 : For disposal within the EC, the appropriate code according to the European Waste

: For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

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SECTION 14: Transport information

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

14.1. UN number or ID number

14.1. UN number or ID number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
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
ΙΑΤΑ	
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	
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available
14.6. Special precautions for user	
Overland transport	
Not applicable	
Transport by sea	

Transport by sea Not applicable

Air transport Not applicable

Inland waterway transport Not applicable

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Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
5.	Benzene	Benzene
28.	Benzene	Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.
29.	Benzene	Substances which are classified as germ cell mutagen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 3 or Appendix 4, respectively.
3(a)	Naphtha (petroleum), hydrotreated heavy (benzene < 0.1%) ; 1,2,4-trimethylbenzene ; mesitylene; 1,3,5-trimethylbenzene ; 1,2,3-Trimethylbenzene ; Xylenes ; ethylbenzene ; cumene ; ethylenediamine ; Benzene ; Toluene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%) ; Antimony, tris(dipentylcarbamodithioato-S,S')- ; 1-Decene, homopolymer, hydrogenated ; Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs., borated ; reaction product of phosphoric acid mono- or di-(C6-C10) alkylester with alkylamine ; C8-C10 Phosphate ; Oleylamine ; Naphtha (petroleum), hydrotreated heavy (benzene < 0.1%) ; Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) ; 1,2,4-trimethylbenzene ; mesitylene; 1,3,5- trimethylbenzene ; 1,2,3-Trimethylbenzene ; Xylenes ; ethylbenzene ; Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO <3%) ; zinc O,O,O',O'- tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) ; Phenol, dodecyl-, branched ; Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts ; Polybutene ; Amines, C12-14-alkyl, C6-10-alkyl phosphates ; 1,3,4-Thiadiazole-2(3Ò)- thione, 5-(*t*e*r*t-dodecyldithio)- ; Phosphoric acid, mono- and di-C6-10-alkyl esters ; cumene ; Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) ; Zinc alkyl dithiophosphate ; tetrapropenylphenol ; Distillates (petroleum), solvent-refined light paraffinic (DMSO < 3%) ; ethylenediamine ; Benzene ; Toluene ; Isobutene-butene polymer ; Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts ; Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts ; Distillates (petroleum), solvent-refined heavy paraffinic (DMSO <3%) ; Benzenesulfonic acid, C10- 16-alkyl derivs., calcium salts ; Sulfonic acids, petroleum, calcium salts ; Distillates (petroleum), hydrotreated light naphthenic (DMSO <3%) ; Tircresylphosphate ; Dibutyl phosphite ; Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based (DMSO <3%) ; Zinc bis[O(6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate)- ; Phenol, dodecyl-, branched ; Mineral oil (DMSO <3%)	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	Lucas Synthetic SAE 5W-40 European Motor Oil, Lucas SAE 30 Break-In Oil, Lucas Semi-Synthetic SAE 10W-40 European Motor Oil, Lucas Synthetic SAE 5W-30 European Motor Oil, Lucas Semi-Synthetic SAE 5W-30 European Motor Oil, Lucas SAE 85W-140 Heavy Duty Gear Oil, Lucas SAE 80W-90 Heavy Duty Gear Oil, Lucas SAE 85W-140 Heavy Duty Gear Oil, Lucas SAE 80W-90 Heavy Duty Gear Oil, Lucas Synthetic SAE 15W-40 Magnum CJ-4, Lucas SAE 20W-50 Break-In Oil, Lucas Power Steering Fluid, Lucas Synthetic SAE 10W-60 European Motor Oil, Lucas Semi-Synthetic SAE 15W-40 European Motor Oil, Lucas Synthetic SAE 10W-30 European Motor Oil, Lucas Power Steering Fluid with Conditioners, L.O.P. Super Lube Semi-Synthetic 10w-40 Motor Oil, L.O.P. Super Lube Semi-Synthetic 5w-30 Motor Oil, L.O.P. Super Lube Fully Synthetic 5w-30 Motor Oil, Lucas SAE 75W-140 Synthetic Gear Oil, Lucas M8 Synthetic SAE 10W-40 Outboard Engine Oil, Lucas SAE 15W-40 Magnum CI-4/SM, Lucas Synthetic SAE 10W-40 Outboard Engine Oil, Lucas SAE 15W-40 Magnum CI-4/SM, Lucas Extreme Duty Outboard Engine Oil Synthetic SAE 20W-50 European Motor Oil ; Antimony, tris(dipentylcarbamodithioato-S,S') - ; sulfurized isobutylene ; Oleylamine ; 1,2,4-trimethylbenzene ; mesitylene; 1,3,5-trimethylbenzene ; zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) ; Phenol, dodecyl-, branched ; Phosphorodithioic acid, mixed O,O-bis(1-11-4alkyl esters, zinc salts ; Reaction products of Benzeneamine, N-phenyl- with nonene (branched) ; Amines, C12-14-alkyl, C6-10-alkyl phosphates ; cumene ; Zinc alkyl dithiophosphate ; tetrapropenylphenol ; Toluene ; Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts ; Tricresylphosphate ; Benzenamine, N-phenyl-, styrenated ; Zinc bis[O(6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate)-; Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased ; Phenol, dodecyl-, branched ; bis(nonylphenyl)amine	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
30.	Phenol, dodecyl-, branched ; tetrapropenylphenol ; Phenol, dodecyl-, branched	Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively.
40.	Naphtha (petroleum), hydrotreated heavy (benzene < 0.1%) ; 1,2,4-trimethylbenzene ; mesitylene; 1,3,5-trimethylbenzene ; 1,2,3-Trimethylbenzene ; Xylenes ; ethylbenzene ; cumene ; ethylenediamine ; Benzene ; Toluene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1, 0 pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.
48.	Toluene	Toluene
72.	Benzene	The substances listed in column 1 of the Table in Appendix 12

Contains substance on the REACH candidate list in concentration ≥ 0.1% or with a lower specific limit: Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) (EC 310-154-3, CAS 121158-58-5), Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) (EC 310-154-3, CAS 74499-35-7), Ethylenediamine (EC 203-468-6, CAS 107-15-3), Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) (EC 310-154-3, CAS 74499-35-7), Ethylenediamine (EC 203-468-6, CAS 107-15-3), Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) (EC 310-154-3, CAS 74499-35-7), Ethylenediamine (EC 203-468-6, CAS 107-15-3), Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) (EC 310-154-3, CAS 121158-58-5)

Contains no REACH Annex XIV substances

Substances subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals: Diphenylamine (122-39-4), Benzene (71-43-2)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

For the following substances of this mixture a chemical safety assessment has been carried out:

Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu) esters, zinc salts

SECTION 16: Other information

Abbreviations and acronyms	
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Abbreviations and acronyms				
	EC50: Environmental Concentration associated with a response by 50% of the test population.			
	European List of Waste (LoW) code			
	LD50: Lethal Dose for 50% of the test population			
	PBT: Persistent, Bioaccumulative, Toxic			
	STEL: Short Term Exposure Limits			
	TWA: Time Weighted Average			
vPvB	Very Persistent and Very Bioaccumulative			

Data sources

 European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database.
 Manufacturer Information. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
 None.

Other information

Full text of H- and EUH-statements				
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3			
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3			
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3			
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3			
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4			
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4			
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4			
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4			
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			
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3			
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4			
Asp. Tox. 1	Aspiration hazard, Category 1			
Asp. Tox. Not classified	Aspiration hazard Not classified			
Carc. 1A	Carcinogenicity, Category 1A			
Carc. 2	Carcinogenicity, Category 2			
Carc. Not classified	Carcinogenicity Not classified			
Eye Dam. 1	Serious eye damage/eye irritation, Category 1			

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Full text of H- and EUH-statements				
Eye Dam./Irrit. Not classified	Serious eye damage/eye irritation Not classified			
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2			
Flam. Liq. 2	Flammable liquids, Category 2			
Flam. Liq. 3	Flammable liquids, Category 3			
H225	Highly flammable liquid and vapour.			
H226	Flammable liquid and vapour.			
H301	Toxic if swallowed.			
H302	Harmful if swallowed.			
H304	May be fatal if swallowed and enters airways.			
H311	Toxic in contact with skin.			
H312	Harmful in contact with skin.			
H314	Causes severe skin burns and eye damage.			
H315	Causes skin irritation.			
H318	Causes serious eye damage.			
H319	Causes serious eye irritation.			
H331	Toxic if inhaled.			
H332	Harmful if inhaled.			
H335	May cause respiratory irritation.			
H336	May cause drowsiness or dizziness.			
H340	May cause genetic defects.			
H350	May cause cancer.			
H351	Suspected of causing cancer.			
H360F	May damage fertility.			
H361	Suspected of damaging fertility or the unborn child.			
H361d	Suspected of damaging the unborn child.			
H372	Causes damage to organs through prolonged or repeated exposure.			
H373	May cause damage to organs through prolonged or repeated exposure.			
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.			
Muta. 1B	Germ cell mutagenicity, Category 1B			
Muta. Not classified	Germ cell mutagenicity Not classified			

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Full text of H- and EUH-statements			
Repr. 1B	Reproductive toxicity, Category 1B		
Repr. 2	Reproductive toxicity, Category 2		
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B		
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C		
Skin Corr./Irrit. Not classified	Skin corrosion/irritation Not classified		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1		
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2		
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation		

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]				
Skin Corr./Irrit. Not classified		Expert judgment		
Eye Dam./Irrit. Not classified		Expert judgment		
Asp. Tox. Not classified		Expert judgment		
Aquatic Chronic 3	H412	Calculation method		

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.