

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Issue date: 5/17/2022 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 : Industrial use, Professional use, Consumer use

Use of the substance/mixture : Lubricant

1.2.2. Uses advised against

Restrictions on use : No additional information

1.3. Details of the supplier of the safety data sheet

Supplier Supplie

Lucas Oil Products UK Ltd

Unit 4 Cunliffe Drive

Llangefni Industrial Estate

LL77 7JA Llangefni

LUCas Oil Products Europe Ltd

Block 3 Harcourt Centre

Harcourt Road

Dublin 2

 LL77 7JA Llangefni
 Dublin 2

 Anglesey - UK
 Ireland

 T +44 344 225 5400

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T 01248 723 666

info@lucasoil.eu.com www.lucasoil.eu.com

Info@LucasOil.co.uk - www.lucasoil.co.uk

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
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX Llandough	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB Newcastle	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

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.

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Labelling, Packaging.) - SDS

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Precautionary statements (CLP) : P102 - Keep out of reach of children.

P103 - Read label before use.

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)

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

Component		
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)	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	
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	
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	
ethylenediamine (107-15-3)	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	

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	

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Component		
ethylenediamine(107-15-3)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	

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%) 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	Not classified
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	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	Asp. Tox. 1, H304
Amides, tallow, N,N-bis(2-hydroxypropyl)	CAS-No.: 1454803-04-3	0 - <22	Aquatic Acute 1, H400 Aquatic Chronic 2, H411
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	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
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

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
			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
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
Calcium carbonate substance with national workplace exposure limit(s) (GB)	CAS-No.: 471-34-1 EC-No.: 207-439-9	0 – 0.3	Not classified
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 substance with national workplace exposure limit(s) (IE, GB)	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

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
			Acute Tox. 3 (Inhalation:dust,mist), H331 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
retrapropenylphenol 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)) substance identified as having endocrine disrupting properties	CAS-No.: 121158-58-5 EC-No.: 310-154-3 EC Index-No.: 604-092-00-9	0 - < 0.2	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 national workplace exposure limit(s) (IE, GB); 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 s,ubstance with national workplace exposure limit(s) (IE, GB); 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 national workplace exposure limit(s) (IE, GB); 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 national workplace exposure limit(s) (IE, GB); 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 national workplace exposure limit(s) (IE, GB); substance with a Community workplace exposure limit	CAS-No.: 108-67-8 EC-No.: 203-604-4 EC Index-No.: 601-025-00-5	< 0.0115	Flam. Liq. 3, H226 STOT SE 3, H335 Aquatic Chronic 2, H411

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	EC-No.: 208-394-8		Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Xylenes substance with national workplace exposure limit(s) (IE, GB); 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	< 0.0115	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315
Naphthalene substance with national workplace exposure limit(s) (IE, GB); substance with a Community workplace exposure limit	CAS-No.: 91-20-3 EC-No.: 202-049-5 EC Index-No.: 601-052-00-2	< 0.0105	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
cumene substance with national workplace exposure limit(s) (IE, GB); 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
ethylenediamine substance listed as REACH Candidate (Ethylenediamine (EDA)) substance with national workplace exposure limit(s) (IE, GB)	CAS-No.: 107-15-3 EC-No.: 203-468-6 EC Index-No.: 612-006-00-6	0 - <0.01	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Resp. Sens. 1, H334 Skin Sens. 1, H317

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 harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

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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 general : Never give anything by mouth to an unconscious person.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Gently wash with plenty of soap and water.

First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water.

First-aid measures after ingestion : Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell.

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

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

6.1. Personal precautions, protective 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 environment.

6.3. Methods and material for containment 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 storage

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.

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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, including 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)

Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

4.0.4 (=====(0.0000)

8.1.1. National occupational exposure and biological limit values

1,2,4-trimethylbenzene (95-63-6)			
EU - Indicative Occupational Exposure Limit (IOEL)			
Local name	1,2,4-Trimethylbenzene		
IOEL TWA	100 mg/m³		
IOEL TWA [ppm]	20 ppm		
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC		
Ireland - Occupational Exposure Limits			
OEL (8 hours ref) (mg/m³)	100 mg/m³		
OEL (8 hours ref) (ppm)	20 ppm		
United Kingdom - Occupational Exposure Limits			
WEL TWA (mg/m³)	125 mg/m³		
WEL TWA (ppm)	25 ppm		
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		
Ireland - Occupational Exposure Limits			
OEL (8 hours ref) (mg/m³)	100 mg/m³		
OEL (8 hours ref) (ppm)	20 ppm		
United Kingdom - Occupational Exposure Limits			
WEL TWA (mg/m³)	125 mg/m³		
WEL TWA (ppm)	25 ppm		

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1,2,3-Trimethylbenzene (526-73-8)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	1,2,3-Trimethylbenzene	
IOEL TWA	100 mg/m³	
IOEL TWA [ppm]	20 ppm	
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	125 mg/m³	
WEL TWA (ppm)	25 ppm	
Xylenes (1330-20-7)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Xylene, mixed isomers, pure	
IOEL TWA	221 mg/m³	
IOEL TWA [ppm]	50 ppm	
IOELV STEL (mg/m³)	442 mg/m³	
IOELV STEL (ppm)	100 ppm	
Notes	Skin	
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	
Ireland - Occupational Exposure Limits		
OEL (8 hours ref) (mg/m³)	221 mg/m³	
OEL (8 hours ref) (ppm)	50 ppm	
OEL (15 min ref) (mg/m3)	442 mg/m³	
OEL (15 min ref) (ppm)	100 ppm	
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	220 mg/m³ (Sk)	
WEL TWA (ppm)	50 ppm (Sk) 650 ppm (methyl hippuric acid/mol creatinine in urine, Post shift)	
WEL STEL (mg/m³)	441 mg/m³ (Sk)	
WEL STEL (OEL STEL) [ppm]	100 ppm (Sk)	
ethylbenzene (100-41-4)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Ethylbenzene	
IOEL TWA	442 mg/m³	
IOEL TWA [ppm]	100 ppm	
IOELV STEL (mg/m³)	884 mg/m³	
IOELV STEL (ppm)	200 ppm	
Notes	Skin	

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ethylbenzene (100-41-4)			
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC		
Ireland - Occupational Exposure Limits			
OEL (8 hours ref) (mg/m³)	442 mg/m³		
OEL (8 hours ref) (ppm)	100 ppm		
OEL (15 min ref) (mg/m3)	884 mg/m³		
OEL (15 min ref) (ppm)	200 ppm		
United Kingdom - Occupational Exposure Limits			
WEL TWA (mg/m³)	441 mg/m³		
WEL TWA (ppm)	100 ppm		
WEL STEL (mg/m³)	552 mg/m³		
WEL STEL (OEL STEL) [ppm]	125 ppm		
Remark	(Sk)		
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		
Ireland - Occupational Exposure Limits			
OEL (8 hours ref) (mg/m³)	50 mg/m ³		
OEL (8 hours ref) (ppm)	10 ppm		
OEL (15 min ref) (mg/m3)	75 mg/m³		
OEL (15 min ref) (ppm)	15 ppm		
United Kingdom - Occupational Exposure Limits			
WEL TWA (mg/m³)	53 mg/m³		
WEL TWA (ppm)	10 ppm		
WEL STEL (mg/m³)	80 mg/m ³		
WEL STEL (OEL STEL) [ppm]	15 ppm		
Remark	The UK Advisory Committee on Toxic Substances has expressed concern that, for these OELs, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but are omitted from the published 2005 list.		
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)			
EU - Indicative Occupational Exposure Limit (IOEL)			
IOEL TWA	5 mg/m³ 8-h (inhalable)		

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Diphenylamine (122-39-4)		
Ireland - Occupational Exposure Limits		
OEL (8 hours ref) (mg/m³)	10 mg/m³	
OEL (15 min ref) (mg/m3)	20 mg/m³	
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	10 mg/m³	
WEL STEL (mg/m³)	20 mg/m³	
cumene (98-82-8)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	2-Phenylpropane (Cumene)	
IOEL TWA	100 mg/m³	
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	
Ireland - Occupational Exposure Limits		
OEL (8 hours ref) (mg/m³)	100 mg/m³	
OEL (8 hours ref) (ppm)	20 ppm	
OEL (15 min ref) (mg/m3)	250 mg/m³	
OEL (15 min ref) (ppm)	50 ppm	
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	125 mg/m³	
WEL TWA (ppm)	25 ppm	
WEL STEL (mg/m³)	250 mg/m³	
WEL STEL (OEL STEL) [ppm]	50 ppm	
Remark	(Sk)	
ethylenediamine (107-15-3)		
Ireland - Occupational Exposure Limits		
OEL (8 hours ref) (mg/m³)	25 mg/m³	
OEL (8 hours ref) (ppm)	10 ppm	
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	25 mg/m³	
WEL TWA (ppm)	10 ppm	

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ethylenediamine (107-15-3)		
Remark	The UK Advisory Committee on Toxic Substances has expressed concern that, for these OELs, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but are omitted from the published 2005 list.	
Benzene (71-43-2)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Benzene	
IOEL TWA	3.25 mg/m³	
IOEL TWA [ppm]	1 ppm	
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	
BOEL TWA [ppm]	1 ppm	
Notes	Skin (Substantial contribution to the total body burden via dermal exposure possible)	
Regulatory reference	DIRECTIVE (EU) 2019/130 (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	
Ireland - Occupational Exposure Limits		
OEL (8 hours ref) (mg/m³)	3 mg/m³	
OEL (8 hours ref) (ppm)	1 ppm	
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	3.25 mg/m³	
WEL TWA (ppm)	1 ppm	
Remark	Carc, Sk	
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/m³)	384 mg/m³	
IOELV STEL (ppm)	100 ppm	

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Toluene (108-88-3)		
Notes	Skin	
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC	
Ireland - Occupational Exposure Limits		
OEL (8 hours ref) (mg/m³)	192 mg/m³	
OEL (8 hours ref) (ppm)	50 ppm	
OEL (15 min ref) (mg/m3)	384 mg/m³	
OEL (15 min ref) (ppm)	100 ppm	
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	191 mg/m³	
WEL TWA (ppm)	50 ppm	
WEL STEL (mg/m³)	384 mg/m³	
WEL STEL (OEL STEL) [ppm]	100 ppm	
Remark	(Sk)	
Calcium carbonate (471-34-1)		
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	10 mg/m³ inhalable aerosol 4 mg/m³ respirable aerosol	

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:

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

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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 : Not available Boiling point Flammability : Not available : Not available **Explosive limits** : Not available Lower explosion limit : Not available Upper explosion limit : > 100 °C Flash point : Not available Auto-ignition temperature : Not available Decomposition temperature : Not available Ha

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 : Not applicable Particle aspect ratio 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

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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

Acute toxicity (inhalation)	: Not classified	
Antimony, tris(dipentylcarbamodithioato-S,S')- (15890-25-2)		
LD50 Oral rat	1640 mg/kg	
LD50 Dermal rabbit	1600 mg/kg	
1-Decene, homopolymer, hydrogenated (68037-01-4)		
LD50 Oral rat	> 5000 mg/kg bodyweight	
LD50 Dermal rat	> 2000 mg/kg	
LC50 Inhalation rat (dust/mist)	> 5.2 mg/l/4h	
sulfurized isobutylene (68511-50-2)		
LD50 Oral rat	8600 mg/kg	
Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%) (64742-55-8)		
LD50 Oral rat	> 5000 mg/kg bodyweight	
LD50 Dermal rabbit	> 2000 mg/kg bodyweight	
LC50 Inhalation rat	> 10.5 mg/l/4h	
Oleylamine (112-90-3)		
LD50 Oral rat	1689 mg/kg	
1,2,4-trimethylbenzene (95-63-6)		
LD50 Oral rat	3415 mg/kg	
LD50 Dermal rat	3440 mg/kg	
LC50 Inhalation rat [ppm]	954 ppm	
mesitylene; 1,3,5-trimethylbenzene (108-67-8)		
LD50 Oral rat	5000 mg/kg	
LD50 Dermal rat	> 4 ml/kg	

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mesitylene; 1,3,5-trimethylbenzene (108-67-8)		
LC50 Inhalation rat	24000 mg/m³	
Xylenes (1330-20-7)		
LD50 Oral rat	> 3500 mg/kg	
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	490 mg/kg	
LD50 Dermal rabbit	20 g/kg	
LC50 Inhalation rat	> 340 mg/m³ 1 hour	
Distillates (petroleum), hydrotreated heavy paraffin	ic (DMSO < 3%) (64742-54-7)	
LD50 Oral rat	> 5000 mg/kg	
LD50 Dermal rabbit	> 2000 mg/kg	
LC50 Inhalation rat	> 5.53 mg/l/4h	
zinc O,O,O',O'-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-dimethylbutyl 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	
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	
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	

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cumene (98-82-8)		
LD50 Dermal rabbit	10600 mg/kg	
LC50 Inhalation rat	22.1 mg/l	
LC50 Inhalation rat [ppm]	4510 ppm/4h	
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)	
Toluene (108-88-3)		
LD50 Oral rat	5580 mg/kg EU Method B.	
LC50 Inhalation rat	> 20 mg/l/4h OECD Guideline 403	
Isobutene-butene polymer (9003-29-6)		
LD50 Oral rat	> 34600 mg/kg	
LD50 Dermal rabbit	> 10250 mg/kg	
LC50 Inhalation rat	> 17300 mg/m³	
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexy	l 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	
Calcium carbonate (471-34-1)		
LD50 Oral rat	> 2000 mg/kg	
LD50 Dermal rat	> 2000 mg/kg	
LC50 Inhalation rat	> 3 mg/l/4h	
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	

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Lubricating oils (petroleum), C15-30, hydrotreate	d 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)		
LD50 Oral rat	> 5000 mg/kg	
LD50 Dermal rat	> 2000 mg/kg	
Unknown acute toxicity (CLP: Classification, Labelling, Packaging.) - SDS Skin corrosion/irritation	 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)) Not classified. Based on available data, the classification criteria are not met 	
Serious eye damage/irritation	: Not classified. Based on available data, the classification criteria are not met	
Respiratory or skin sensitisation	: Not classified. Based on available data, the classification criteria are not met	
Germ cell mutagenicity Carcinogenicity	 Not classified. Based on available data, the classification criteria are not met Not classified. Based on available data, the classification criteria are not met 	
Xylenes (1330-20-7)	. Not classified. Based on available data, the classification chieffa are not met	
IARC group	3 - Not classifiable	
ethylbenzene (100-41-4)	V 1.0. S.	
IARC group	2B - Possibly carcinogenic to humans	
Naphthalene (91-20-3)	· · ·	
IARC group	2B - Possibly carcinogenic to humans	
cumene (98-82-8)		
IARC group	2B - Possibly carcinogenic to humans	
Benzene (71-43-2)	<u> </u>	
IARC group	1 - Carcinogenic to humans	
Toluene (108-88-3)	1 Caronogenie te namane	
IARC group	3 - Not classifiable	
Reproductive toxicity	Not classified. Based on available data, the classification criteria are not met	
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.	
- · ·		

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1,2,3-Trimethylbenzene (526-73-8)			
STOT-single exposure	May cause respiratory irritation.		
cumene (98-82-8)	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		
Oleylamine (112-90-3)			
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.		
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.		
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		

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 86W-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 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 SAE 75W-90 Marine Gear Oil, Lucas SAE 75W-90 Synthetic Gear Oil, Lucas SAE 10W-40 Outboard Engine 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	
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

Ecology - water : Harmful to aquatic life with long lasting effects.

Unknown hazards to the aquatic environment (CLP): Contains 9.23 % of components with unknown hazards to the aquatic environment

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Harmful to aquatic life with long lasting effects.

(chronic)

Citionic)		
1-Decene, homopolymer, hydrogenated (68037-01	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	
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	

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Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%) (64742-55-8)		
LC50 fish 1	> 100 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	
1,2,4-trimethylbenzene (95-63-6)		
LC50 fish 1	7.72 mg/l	
LC50 other aquatic organisms 1	3.6 mg/l	
EC50 other aquatic organisms 1	2.356 mg/l	
mesitylene; 1,3,5-trimethylbenzene (108-67-8)		
LC50 fish 1	12.52 mg/l	
LC50 other aquatic organisms 1	6 mg/l	
EC50 other aquatic organisms 1	25 mg/l	
ethylbenzene (100-41-4)		
LC50 fish 1	5.1 mg/l	
EC50 other aquatic organisms 1	7.7 mg/l	
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	0.91 (0.91 – 2.82) mg/l Oncornhynchus mykiss	
LC50 - Fish [2]	1 (1 – 6.5) mg/l Pimpephales promelas	
EC50 crustacea	1.96 mg/l	
EC50 other aquatic organisms 1	33 mg/l	
LOEC (acute)	3.2 mg/l	
NOEC (acute)	1.8 mg/l	
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)		
EC50 crustacea	> 10000 mg/l	

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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-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)	cumene (98-82-8)		
LC50 fish 1	4.8 mg/l		
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)		
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/l OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)		
ErC50 algae	100 mg/l OECD Guideline 201 (Alga, Growth Inhibition Test)		

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Benzene (71-43-2)		
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 [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	
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/l 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	
Calcium carbonate (471-34-1)		
LC50 fish 1	> 100 % v/v, 96 h	
EC50 crustacea	> 100 % v/v, 48 h	
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

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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 Semi-Synthetic SAE 5W-30 European Motor Oil, Lucas SAE 85W-140 Heavy Duty Gear Oil, Lucas SAE 86W-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 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 SAE 10W-40 Outboard Engine Oil, Lucas SAE 10W-30, Anti-Squawk/Anti-Shudder Trans & Diff Additive, Lucas Synthetic SAE 20W-50 European Motor Oil

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		
Persistence and degradability	May cause long-term adverse effects in the environment.	
1-Decene, homopolymer, hydrogenated (68037-01-4)		
Persistence and degradability	Readily biodegradable.	
Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%) (64742-55-8)		
Persistence and degradability	Not 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.	
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.	
Distillates (petroleum), solvent-dewaxed heavy para	affinic (DMSO <3%) (64742-65-0)	
Persistence and degradability	Not established.	
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.	
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.	

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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

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 SAE 15W-40 Magnum Cl-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

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	
Oleylamine (112-90-3)		
Log Pow	7.5	
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	
Xylenes (1330-20-7)		
BCF fish 1	1.3 mg/l	
Bioaccumulative potential	Not expected to bioaccumulate.	
ethylbenzene (100-41-4)		
Bioaccumulative potential	Not established.	
Naphthalene (91-20-3)		
BCF fish 1	≥ 427 (427 – 1158)	
Diphenylamine (122-39-4)		
Bioaccumulative potential	Not established.	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)		
Log Kow	0.56	
Polybutene (9003-29-6)		
Bioaccumulative potential	This product is not bioaccumulating.	

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Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO <3%) (64742-65-0)		
Bioaccumulative potential	Not established.	
cumene (98-82-8)		
Bioaccumulative potential	Not established.	
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 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 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 SAE 10W-40 Outboard Engine 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.	
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 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 SAE 75W-40 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 Magnum Cl-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		
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)	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	
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	
ethylenediamine (107-15-3)	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	

12.6. Endocrine disrupting properties

Component	
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.

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

Catalogue (EWC) should be used.

SECTION 14: Transport information

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

14.1. UN number or ID number

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

ADR

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

IMDG

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

IATA

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

ADN

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

RID

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

14.4. Packing group

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

14.5. Environmental hazards

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

Not applicable

Air transport

Not applicable

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Inland waterway transport

Not applicable

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
3.	Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%); 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; Xylenes; ethylbenzene; mesitylene; 1,3,5-trimethylbenzene	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008
28.	Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%); Naphtha (petroleum), hydrotreated heavy (benzene < 0.1%); Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%)	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.	Naphtha (petroleum), hydrotreated heavy (benzene < 0.1%); Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%)	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; Xylenes; ethylbenzene; 1,2,3-Trimethylbenzene; mesitylene; 1,3,5-trimethylbenzene	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
3(b)	Distillates (petroleum), hydrotreated light paraffinic (DMSO <3%); 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; Xylenes; ethylbenzene; 1,2,3-Trimethylbenzene; Antimony, tris(dipentylcarbamodithioato-S,S')-	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

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(c)	sulfurized isobutylene; Oleylamine; 1,2,4-trimethylbenzene; mesitylene; 1,3,5-trimethylbenzene; Antimony, tris(dipentylcarbamodithioato-S,S')-; Benzenamine, N-phenyl-, reaction products with isobutylene and ,4,4-trimethylpentene; Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	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
40.	1,2,4-trimethylbenzene; ethylbenzene	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 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

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 (EDA) (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.
	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

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Abbreviations and acronyms		
	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.

Other information : None.

Full text of H- and EUH-s	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			
Carc. 1A	Carcinogenicity, Category 1A			
Carc. 2	Carcinogenicity, Category 2			
Eye Dam. 1	Serious eye damage/eye irritation, Category 1			
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2			
Flam. Liq. 2	Flammable liquids, Category 2			
Flam. Liq. 3	Flammable liquids, Category 3			
H225	Highly flammable liquid and vapour.			
H226	Flammable liquid and vapour.			
H301	Toxic if swallowed.			

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Full text of H- and EUH-statements			
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.		
H317	May cause an allergic skin reaction.		
H318	Causes serious eye damage.		
H319	Causes serious eye irritation.		
H331	Toxic if inhaled.		
H332	Harmful if inhaled.		
H334	May cause allergy or asthma symptoms or breathing difficulties 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		
Repr. 1B	Reproductive toxicity, Category 1B		
Repr. 2	Reproductive toxicity, Category 2		
Resp. Sens. 1	Respiratory sensitisation, Category 1		
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B		
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
Skin Sens. 1	Skin sensitisation, Category 1		

Safety Data Sheet

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

Full text of H- and EUH-statements		
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]				
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.