

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Issue date: 2/20/2022 Revision date: 5/17/2022 Version: 1.1

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

1.1. Product identifier

Product form : Mixture

Trade name : Lucas Semi-Synthetic 2-Cycle Land & Sea Oil TC-W3

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 data available

1.3. Details of the supplier of the safety data sheet

Supplier Supplier

Lucas Oil Products UK Ltd

Unit 4 Cunliffe Drive

Lucas Oil Products Europe Ltd

Block 3 Harcourt Centre

Llangefni Industrial EstateHarcourt RoadLL77 7JA LlangefniDublin 2Anglesey - UKIreland

T 01248 723 666 T +44 344 225 5400

 $\underline{\mathsf{Info@LucasOil.co.uk}} \ - \underline{\mathsf{www.lucasoil.co.uk}} \ - \underline{\mathsf{wwww.lucasoil.co.uk}} \ - \underline{\mathsf{www.lucasoil.co.uk}} \ - \underline{\mathsf{www.luca$

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	

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Country	Organisation/Company	Address	Emergency number	Comment
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 [CLP]

Skin corrosion/irritation, Category 2
H315
Serious eye damage/eye irritation, Category 2
H319
Specific target organ toxicity – Single exposure, Category 3, Narcosis
Hazardous to the aquatic environment – Chronic Hazard, Category 2
H411

Adverse physicochemical, human health and environmental effects

No data available

2.2. Label elements

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

Hazard pictograms (CLP: Classification, Labelling,

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

Packaging.)



GHS07

Signal word (CLP) : Warning

Contains : Naphtha (petroleum), hydrotreated heavy (benzene <0.1%), Distillates (petroleum),

hydrotreated light

Hazard statements (CLP) : H315 - Causes skin irritation.

H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness. H411 - Toxic to aquatic life with long lasting effects.

GHS09

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.

P261 - Avoid breathing mist, spray, vapours.

P264 - Wash hands thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

Child-resistant fastening : Not applicable Tactile warning : Not applicable

2.3. Other hazards

Other hazards not contributing to the classification : Combustible liquid.

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
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

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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	40 - 60	Not classified
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	0 – 60	Asp. Tox. 1, H304
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 – 30	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Distillates (petroleum), hydrotreated light	CAS-No.: 64742-47-8 EC-No.: 265-149-8 EC Index-No.: 649-422-00-2	0 – 30	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Butene homopolymer	CAS-No.: 9003-29-6 EC-No.: 500-004-7	10.05	Aquatic Chronic 4, H413
White mineral oil	CAS-No.: 8042-47-5 EC-No.: 232-455-8	0.5 - 1.5	Asp. Tox. 1, H304
vinyl acetate substance with national workplace exposure limit(s) (IE, GB); substance with a Community workplace exposure limit (Note D)	CAS-No.: 108-05-4 EC-No.: 203-545-4 EC Index-No.: 607-023-00-0	0.018	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 2, H351 STOT SE 3, H335
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	0.002 - 0.003	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
cumene	CAS-No.: 98-82-8 EC-No.: 202-704-5 EC Index-No.: 601-024-00-X	0.002 - 0.003	Flam. Liq. 3, H226 Carc. 2, H351 STOT SE 3, H335

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
substance with national workplace exposure limit(s) (IE, GB); substance with a Community workplace exposure limit (Note C)			Asp. Tox. 1, H304 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	0.002 – 0.003	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	0.002 - 0.003	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
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	0.002 - 0.003	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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 D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

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.

Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

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 : If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a POISON

CENTER/doctor if you feel unwell.

First-aid measures after skin contact : Wash with plenty of water. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

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

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

Symptoms/effects after inhalation : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

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5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry chemical. Foam. Water spray.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid. Burning produces irritating, toxic and noxious fumes. Flammable

vapours may accumulate in the container.

Explosion hazard : May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing

closed containers, spreading fire and increasing risk of burns and injuries.

5.3. Advice for firefighters

Firefighting instructions : Cool adjacent structures and containers with water spray to protect and prevent ignition.

Exercise caution when fighting any chemical fire. Eliminate all ignition sources if safe to do

SO.

Protection during firefighting : Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames.

No smoking. Avoid contact with skin, eyes and clothing. Do not breathe aerosol. Do not breathe vapour. Do not touch spilled material. Use personal protective equipment as

required.

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 : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment. 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. Do not allow minor leaks or spills to accumulate on walking surfaces.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

Sweep or shovel spills into appropriate container for disposal.

Other information : Spilled material may present a slipping hazard.

6.4. Reference to other sections

Section 13: disposal information. Section 8: personal protective equipment. Section 7: safe handling.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Keep away

from ignition sources (including static discharges). Vapour could travel to source of ignition

and flash back.

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes and clothing.

No open flames. No smoking. Do not breathe vapours. Flammable vapours may accumulate

in the container.

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

smoking and when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Comply with

applicable regulations. Use only non-sparking tools.

Storage conditions : Keep container tightly closed. Keep in fireproof place.

Incompatible products : Oxidizer. Strong acids. Strong bases.

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)

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Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

5.1.1. National occupational exposure and biological limit values		
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (KV > 20.5 cSt) (64742-54-7)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA	5 mg/m³ 8-h (inhalable)	
Distillates (petroleum), hydrotreated heavy paraffin	ic (DMSO < 3%) (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	
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	
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)	
cumene (98-82-8)		
EU - Indicative Occupational Exposure Limit (IOEL)		

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cumene (98-82-8)	
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)
Benzene (71-43-2)	<u></u>
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 (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

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Benzene (71-43-2)		
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	
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	
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/m³	
OEL (8 hours ref) (ppm)	10 ppm	
OEL (15 min ref) (mg/m3)	75 mg/m³	

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Naphthalene (91-20-3)		
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/m³	
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.	
vinyl acetate (108-05-4)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Vinyl acetate	
IOEL TWA	17.6 mg/m³	
IOEL TWA [ppm]	5 ppm	
IOELV STEL (mg/m³)	35.2 mg/m³	
IOELV STEL (ppm)	10 ppm	
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU	
Ireland - Occupational Exposure Limits		
OEL (8 hours ref) (mg/m³)	18 mg/m³	
OEL (8 hours ref) (ppm)	5 ppm	
OEL (15 min ref) (mg/m3)	35 mg/m³	
OEL (15 min ref) (ppm)	10 ppm	
United Kingdom - Occupational Exposure Limits		
WEL TWA (mg/m³)	17.6 mg/m³	
WEL TWA (ppm)	5 ppm	
WEL STEL (mg/m³)	35.2 mg/m³	
WEL STEL (OEL STEL) [ppm]	10 ppm	

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 creating mist or spray. Avoid splashing. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Emergency safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.

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8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses. EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. Long sleeved protective clothing

Hand protection:

Wear suitable gloves resistant to chemical penetration. nitrile rubber gloves. neoprene gloves. EN 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Use an approved respirator equipped with oil/mist cartridges. EN 136/140

: No data available.

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:

Colour

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

Odour : No data available. Odour threshold : Not available Melting point : Not available : Not available Freezing point : Not available Boiling point Flammability : Combustible liquid : Not available **Explosive limits** Lower explosion limit : Not available Upper explosive limit (UEL) : Not available Flash point Auto-ignition temperature : Not available Decomposition temperature : Not available : Not available рΗ

Viscosity, kinematic : ≥ 45 mm²/s @ 40 °C

Solubility : Not available Log Kow : Not available Vapour pressure : Not available Vapour pressure at 50 °C : Not available : Not available Density : 0.869 Relative density Relative vapour density at 20 °C : Not available : Not applicable Particle size Particle size distribution : Not applicable Particle shape : Not applicable Particle aspect ratio : Not applicable Particle aggregation state : Not applicable Particle agglomeration state : Not applicable Particle specific surface area : Not applicable Particle dustiness : Not applicable

9.2. Other information

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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

Combustible liquid. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

10.5. Incompatible materials

Oxidizer. Strong acids. Strong bases.

10.6. Hazardous decomposition products

None under normal use.

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	
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (KV > 20.5 cSt) (64742-54-7)		
LD50 Oral rat	> 5000 mg/kg	
LD50 Dermal rabbit	> 2000 mg/kg	
LC50 Inhalation rat	> 5.53 mg/l/4h	
Distillates (petroleum), hydrotreated heavy parafi	inic (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	
Naphtha (petroleum), hydrotreated heavy (benze	ne <0.1%) (64742-48-9)	
LD50 Oral rat	> 5000 mg/kg	
LD50 Dermal rabbit	> 2000 mg/kg	
LC50 Inhalation rat	> 5610 mg/m³	
Distillates (petroleum), hydrotreated light (64742-	47-8)	
LD50 Oral rat	> 5000 mg/kg	
LD50 Dermal rabbit	> 2000 mg/kg	
LC50 Inhalation rat (dust/mist)	> 5.28 mg/l/4h	
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	

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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
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)
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
vinyl acetate (108-05-4)	
LD50 Oral rat	3497 mg/kg
LD50 Dermal rabbit	2340 mg/kg
White mineral oil (8042-47-5)	
LD50 Oral rat	> 5000 mg/kg
LD50 Dermal rabbit	> 2000 mg/kg
LC50 Inhalation rat	> 5 mg/l/4h
Butene homopolymer (9003-29-6)	
LD50 Oral rat	> 34600 mg/kg
LD50 Dermal rabbit	> 10250 mg/kg
LC50 Inhalation rat	> 17300 mg/m³
Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity	 Causes skin irritation. Causes serious eye irritation. 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)
Toluene (108-88-3)	
IARC group	3 - Not classifiable
cumene (98-82-8)	
IARC group	2B - Possibly carcinogenic to humans
Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans

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Naphthalene (91-20-3)			
IARC group	2B - Possibly carcinogenic to humans		
vinyl acetate (108-05-4)			
IARC group	2B - Possibly carcinogenic to humans		
White mineral oil (8042-47-5)			
NOAEL (chronic, oral, animal/male, 2 years)	> 1200 mg/kg bodyweight No carcinogenic potential observed.		
Chronic dermal	mouse: Lack of significant effects. Chronic inhalation to various animal species at 5 and 100 mg/m3 doses: no adverse effects.		
Reproductive toxicity STOT-single exposure	Not classified (Based on available data, the classification criteria are not met) May cause drowsiness or dizziness.		
Naphtha (petroleum), hydrotreated heavy (benzen	e <0.1%) (64742-48-9)		
STOT-single exposure	May cause drowsiness or dizziness.		
Distillates (petroleum), hydrotreated light (64742-4	47-8)		
STOT-single exposure	May cause drowsiness or dizziness.		
Toluene (108-88-3)	Toluene (108-88-3)		
STOT-single exposure	May cause drowsiness or dizziness.		
cumene (98-82-8)			
STOT-single exposure	May cause respiratory irritation.		
vinyl acetate (108-05-4)			
STOT-single exposure	May cause respiratory irritation.		
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)		
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.		
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.		
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.		
White mineral oil (8042-47-5)			
NOAEL (subacute, oral, animal/male, 28 days)	> 1500 mg/kg bodyweight (dog)		
Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)		

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Lucas Semi-Synthetic 2-Cycle Land & Sea Oil TC-W	/3
Viscosity, kinematic	≥ 45 mm²/s @ 40 °C

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term

erm : N

: Not classified (Based on available data, the classification criteria are not met)

(acute)

Hazardous to the aquatic environment, long-term

: Toxic to aquatic life with long lasting effects.

(chronic)

(chronic)		
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (KV > 20.5 cSt) (64742-54-7)		
EC50 crustacea > 10000 mg/l		
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)		
EC50 crustacea	> 10000 mg/l	
Naphtha (petroleum), hydrotreated heavy (benzene <0.1%) (64742-48-9)		
LC50 fish 1	10 mg/l 96 h	
EC50 crustacea	1.4 mg/l 48 h	
Distillates (petroleum), hydrotreated light (64742-47-8)		
LC50 fish 1	> 1 mg/l 96 h	
NOEC chronic fish	> 0.01 <= 0.1 mg/l	
NOEC chronic crustacea	> 0.01 <= 0.1 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	
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'	

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EC50 72h - Algae [1] ErC50 algae 100 mg/l OECD Guideline 201 LOEC (chronic) 1.6 mg/l 32 d NOEC chronic crustacea 3 mg/l ethylbenzene (100-41-4) LC50 fish 1 EC50 other aquatic organisms 1 EC50 72h - Algae [1] EC50 72h - Algae [2] EC50 96h - Algae [1] 3.6 mg/l Test organisms (speci Raphidocelis subcapitata, Sele Raphidocelis subcapitata, Sele C50 96h - Algae [2] EC50 96h - Algae [2] T.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele C50 96h - Algae [2] T.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele C50 96h - Algae [2] EC50 96h - Algae [2] T.7 mg/l Test organisms (speci LOEC (chronic) 1.7 mg/l Test organisms (speci NOEC (acute) NOEC (acute)	aphnia sp. Acute Immobilisation Test) Alga, Growth Inhibition Test) s): Pseudokirchneriella subcapitata (previous names: astrum capricornutum) s): Skeletonema costatum
EC50 72h - Algae [1] 29 mg/l Source: NITE ErC50 algae 100 mg/l OECD Guideline 201 LOEC (chronic) 1.6 mg/l 32 d NOEC chronic crustacea 3 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 (speci Raphidocelis subcapitata, Sele EC50 72h - Algae [2] 4.9 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [1] 3.6 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci Raphidocelis subcapitata, Sele PC50 96h - Algae [2] 9.9 mg/l Test organisms (speci Raphidocelis subca	Alga, Growth Inhibition Test) s): Pseudokirchneriella subcapitata (previous names: astrum capricornutum) s): Skeletonema costatum
ErC50 algae	s): Pseudokirchneriella subcapitata (previous names: astrum capricornutum) s): Skeletonema costatum
LOEC (chronic) NOEC chronic crustacea a mg/l ethylbenzene (100-41-4) LC50 fish 1 EC50 other aquatic organisms 1 EC50 72h - Algae [1] EC50 72h - Algae [2] EC50 72h - Algae [2] EC50 96h - Algae [2] EC50 96h - Algae [2] LOEC (chronic) NOEC (acute) NOEC (acute) NOEC (chronic) Naphthalene (91-20-3) LC50 Fish [2] EC50 other aquatic organisms 1 1.6 mg/l 32 d 3 mg/l 5.1 mg/l 5.1 mg/l 5.4 mg/l Test organisms (specing the subcapitata) (specing	s): Pseudokirchneriella subcapitata (previous names: astrum capricornutum) s): Skeletonema costatum
NOEC chronic crustacea 3 mg/l	astrum capricornutum) s): Skeletonema costatum
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 (specing Raphidocelis subcapitata, Selection Raphidocelis subcapit	astrum capricornutum) s): Skeletonema costatum
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 (speci Raphidocelis subcapitata, Sele EC50 72h - Algae [2] 4.9 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [1] 3.6 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci NOEC (chronic) NOEC (chronic) 1.7 mg/l Test organisms (speci NOEC (acute) NOEC (chronic) 0.96 mg/l Test organisms (speci Naphthalene (91-20-3) LC50 fish 1 0.91 (0.91 – 2.82) mg/l Oncorn LC50 - Fish [2] EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	astrum capricornutum) s): Skeletonema costatum
EC50 other aquatic organisms 1 7.7 mg/l EC50 72h - Algae [1] 5.4 mg/l Test organisms (specina phidocelis subcapitata, Sele eC50 72h - Algae [2] EC50 72h - Algae [2] 4.9 mg/l Test organisms (specina phidocelis subcapitata, Sele eC50 96h - Algae [1] 3.6 mg/l Test organisms (specina phidocelis subcapitata, Sele eC50 96h - Algae [2] EC50 96h - Algae [2] 7.7 mg/l Test organisms (specina phidocelis subcapitata, Sele eC50 96h - Algae [2] LOEC (chronic) 1.7 mg/l Test organisms (specina phidocelis subcapitata, Sele eC50 96h - Algae [2] NOEC (acute) 3.3 mg/l NOEC (chronic) Noec (acute) Naphthalene (91-20-3) LC50 fish 1 0.91 (0.91 – 2.82) mg/l Oncorn eC50 crustacea 1.96 mg/l EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	astrum capricornutum) s): Skeletonema costatum
EC50 72h - Algae [1] EC50 72h - Algae [2] EC50 72h - Algae [2] EC50 96h - Algae [1] EC50 96h - Algae [1] EC50 96h - Algae [2]	astrum capricornutum) s): Skeletonema costatum
Raphidocelis subcapitata, Sele	astrum capricornutum) s): Skeletonema costatum
EC50 96h - Algae [1] 3.6 mg/l Test organisms (speci Raphidocelis subcapitata, Sele EC50 96h - Algae [2] 7.7 mg/l Test organisms (speci LOEC (chronic) 1.7 mg/l Test organisms (speci NOEC (acute) NOEC (acute) 3.3 mg/l NOEC (chronic) 0.96 mg/l Test organisms (speci Decomposite of the second process of t	·
Raphidocelis subcapitata, Sele	
LOEC (chronic) 1.7 mg/l Test organisms (specing points) NOEC (acute) 3.3 mg/l NOEC (chronic) 0.96 mg/l Test organisms (specing points) Naphthalene (91-20-3) 0.91 (0.91 – 2.82) mg/l Oncorn LC50 fish 1 0.91 (0.91 – 2.82) mg/l Oncorn LC50 - Fish [2] 1 (1 – 6.5) mg/l Pimpephales p EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	s): Pseudokirchneriella subcapitata (previous names: astrum capricornutum)
NOEC (acute) 3.3 mg/l NOEC (chronic) 0.96 mg/l Test organisms (spectrum) Naphthalene (91-20-3) 0.91 (0.91 – 2.82) mg/l Oncorn LC50 fish 1 0.91 (0.91 – 2.82) mg/l Oncorn LC50 - Fish [2] 1 (1 – 6.5) mg/l Pimpephales p EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	s): Skeletonema costatum
NOEC (chronic) 0.96 mg/l Test organisms (spection) Naphthalene (91-20-3) 0.91 (0.91 – 2.82) mg/l Oncorn LC50 fish 1 0.91 (0.91 – 2.82) mg/l Oncorn LC50 - Fish [2] 1 (1 – 6.5) mg/l Pimpephales p EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	s): Ceriodaphnia dubia Duration: '7 d'
Naphthalene (91-20-3) LC50 fish 1 0.91 (0.91 – 2.82) mg/l Oncorn LC50 - Fish [2] 1 (1 – 6.5) mg/l Pimpephales p EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	
LC50 fish 1 0.91 (0.91 – 2.82) mg/l Oncorn LC50 - Fish [2] 1 (1 – 6.5) mg/l Pimpephales p EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	es): Ceriodaphnia dubia Duration: '7 d'
LC50 - Fish [2] 1 (1 - 6.5) mg/l Pimpephales p EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	
EC50 crustacea 1.96 mg/l EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	nchus mykiss
EC50 other aquatic organisms 1 33 mg/l LOEC (acute) 3.2 mg/l	melas
LOEC (acute) 3.2 mg/l	
NOEC (acute) 1.8 mg/l	
1.0 mg/	
vinyl acetate (108-05-4)	
LC50 fish 1 18 mg/kg after 96 hours, Lepon	s macrochirus
EC50 crustacea 52 mg/l After 24 hours	
EC50 other aquatic organisms 1 45 mg/l After 45 hours, Artemia	
ErC50 algae 35 mg/l	alina
White mineral oil (8042-47-5)	salina
LC50 fish 1 3841 mg/l Oncorhynchus mykis	salina

12.2. Persistence and degradability

Lucas Semi-Synthetic 2-Cycle Land & Sea Oil TC-W3	
Persistence and degradability May cause long-term adverse effects in the environment.	
Naphtha (petroleum), hydrotreated heavy (benzene <0.1%) (64742-48-9)	
Biodegradation 61 % 28 d	
Toluene (108-88-3)	
Persistence and degradability	Readily biodegradable.

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cumene (98-82-8)		
Persistence and degradability	May cause long-term adverse effects in the environment.	
Benzene (71-43-2)		
Persistence and degradability Readily biodegradable.		
ethylbenzene (100-41-4)		
Persistence and degradability Not established.		
vinyl acetate (108-05-4)		
Persistence and degradability	Readily biodegradable.	
Biodegradation	82 – 98 % after 14 days	
Butene homopolymer (9003-29-6)		
Persistence and degradability	This product is not expected to be biodegradable.	

12.3. Bioaccumulative potential

Lucas Semi-Synthetic 2-Cycle Land & Sea Oil TC-W3		
Bioaccumulative potential Not established.		
Distillates (petroleum), hydrotreated light (64742-47-8)		
Log Kow	2.1 – 5	
Bioaccumulative potential	Bioaccumulative potential.	
Toluene (108-88-3)		
Bioconcentration factor (BCF REACH) 90		
Log Pow	2.73 Source: HSDB	
Log Kow	2.73	
cumene (98-82-8)		
Bioaccumulative potential	Not established.	
Benzene (71-43-2)		
BCF fish 1	3.5 – 4.4	
Bioconcentration factor (BCF REACH)	0	
Log Pow	1.83	
ethylbenzene (100-41-4)		
Bioaccumulative potential	Not established.	
Naphthalene (91-20-3)		
BCF fish 1	≥ 427 (427 – 1158)	
vinyl acetate (108-05-4)		
BCF fish 1	2.09 – 2.34 at 20 degrees C	
Log Pow	0.21 – 0.73	
Bioaccumulative potential	Not expected to bioaccumulate.	
Butene homopolymer (9003-29-6)		
Bioaccumulative potential	This product is not bioaccumulating.	

12.4. Mobility in soil

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Lucas Semi-Synthetic 2-Cycle Land & Sea Oil TC-W3	
Ecology - soil Not established.	
Butene homopolymer (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

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
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

No data available

12.7. Other adverse effects

Additional information : No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

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

Additional information : Handle empty containers with care because residual vapours are flammable.

HP Code : HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one

or more sectors of the environment

or more sectors of the environment

HP4 - "Irritant - skin irritation and eye damage:" waste which on application can cause skin

irritation or damage to the eye.

HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause

acute toxic effects following aspiration.

SECTION 14: Transport information

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

14.1. UN number or ID number

 UN-No. (ADR)
 : UN 3082

 UN-No. (IMDG)
 : UN 3082

 UN-No. (IATA)
 : UN 3082

 UN-No. (ADN)
 : UN 3082

 UN-No. (RID)
 : UN 3082

14.2. UN proper shipping name

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha (petroleum),

hydrotreated heavy, Distillates (petroleum), hydrotreated light)

Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha (petroleum),

hydrotreated heavy, Distillates (petroleum), hydrotreated light)

Proper Shipping Name (IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha (petroleum),

hydrotreated heavy, Distillates (petroleum), hydrotreated light)

Proper Shipping Name (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha (petroleum),

hydrotreated heavy, Distillates (petroleum), hydrotreated light)

Proper Shipping Name (RID) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha (petroleum),

hydrotreated heavy, Distillates (petroleum), hydrotreated light)

Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha

(petroleum), hydrotreated heavy, Distillates (petroleum), hydrotreated light), 9, III, (-)

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha

(petroleum), hydrotreated heavy, Distillates (petroleum), hydrotreated light), 9, III, MARINE

POLLUTANT

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Transport document description (IATA)

Transport document description (ADN)

Transport document description (RID)

: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated heavy, Distillates (petroleum), hydrotreated light), 9, III

: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated heavy, Distillates (petroleum), hydrotreated light), 9, III

: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated heavy, Distillates (petroleum), hydrotreated light), 9, III

14.3. Transport hazard class(es)

ΔDR

Transport hazard class(es) (ADR) : 9
Danger labels (ADR) : 9



IMDG

Transport hazard class(es) (IMDG) : 9
Danger labels (IMDG) : 9



IATA

Transport hazard class(es) (IATA) : 9
Danger labels (IATA) : 9



ADN

Transport hazard class(es) (ADN) : 9
Danger labels (ADN) : 9



RID

Transport hazard class(es) (RID) : 9
Danger labels (RID) : 9



14.4. Packing group

Packing group (ADR) : III
Packing group (IMDG) : III
Packing group (IATA) : III
Packing group (ADN) : III
Packing group (RID) : III

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14.5. Environmental hazards

Dangerous for the environment : Yes Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 375, 601

Limited quantities (ADR) : 5I Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Special packing provisions (ADR) : PP1
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions : TP1, TP29

(ADR)

Tank code (ADR) : LGBV
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Loading, unloading : CV13

and handling (ADR)

Hazard identification number (Kemler No.) : 90

Orange plates :

90 3082

Tunnel restriction code (ADR) : -

EAC code : •3Z

Transport by sea

Special provisions (IMDG) : 274, 335, 969

Limited quantities (IMDG) : 5 L Excepted quantities (IMDG) : E1 Packing instructions (IMDG) : LP01, P001 Special packing provisions (IMDG) : PP1 IBC packing instructions (IMDG) : IBC03 Tank instructions (IMDG) : T4 Tank special provisions (IMDG) : TP1, TP29 EmS-No. (Fire) : F-A EmS-No. (Spillage) : S-F Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L

Special provisions (IATA) : A97, A158, A197, A215

ERG code (IATA) : 9L

Inland waterway transport

Classification code (ADN) : M6

Special provisions (ADN) : 274, 335, 375, 601

Limited quantities (ADN) : 5 L

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T

Equipment required (ADN) : PP

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Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : M6

Special provisions (RID) : 274, 335, 375, 601

Limited quantities (RID) : 5L Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions : TP1, TP29

(RID)

Tank codes for RID tanks (RID) : LGBV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12

Special provisions for carriage - Loading, unloading : CW13, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

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		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)	vinyl acetate; Naphtha (petroleum), hydrotreated heavy (benzene <0.1%); Distillates (petroleum), hydrotreated light; ethylbenzene; Benzene; Toluene; cumene	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)	Lucas Semi-Synthetic 2-Cycle Land & Sea Oil TC-W3; Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%); vinyl acetate; White mineral oil; Naphtha (petroleum), hydrotreated heavy (benzene <0.1%); Distillates (petroleum), hydrotreated light; ethylbenzene; Benzene; Toluene; cumene; Solvent naphtha (petroleum), heavy arom.	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 Semi-Synthetic 2-Cycle Land & Sea Oil TC-W3; Butene homopolymer; Naphtha (petroleum), hydrotreated heavy (benzene <0.1%); Distillates (petroleum), hydrotreated light; Toluene; cumene; Solvent naphtha (petroleum), heavy arom.	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
40.	vinyl acetate; Naphtha (petroleum), hydrotreated heavy (benzene <0.1%); Distillates (petroleum), hydrotreated light; ethylbenzene; Benzene; Toluene; cumene	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.
48.	Toluene	Toluene
72.	Benzene	The substances listed in column 1 of the Table in Appendix 12

Contains no substance on the REACH candidate list

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: 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 data available

SECTION 16: Other information

Abbreviations and acronyms	
	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	OSHA: Occupational Safety & Health Administration
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weighted Average

Data sources	: Canadian Centre for Occupational Health and Safety. Accessed at:
	http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html. European Chemicals Agency
	(ECHA) C&L Inventory database. Accessed at
	http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database. Krister
	Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth
	Edition. Manufacturer Information. National Fire Protection Association. Fire Protection
	Guide to Hazardous Materials; 10th edition.

Other information : None.

Full text of H- and EUH-statements		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	

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Full text of H- and EUH-statements			
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 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.		
H302	Harmful if swallowed.		
H304	May be fatal if swallowed and enters airways.		
H315	Causes skin irritation.		
H319	Causes serious eye irritation.		
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.		
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. 2	Reproductive toxicity, Category 2		
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, Narcosis		

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Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]		
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Calculation method
Aquatic Chronic 2	H411	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.