Lucas Octane Booster

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
Name : Lucas Octane Booster
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 : Fuel additives

1.2.2. Uses advised against

Restrictions on use : Must not come into contact with food or be consumed.

1.3. Details of the supplier of the safety data sheet

Supplier
Lucas Oil Products UK Ltd
Unit 4 Cunliffe Drive
Llangefni Industrial Estate
LL77 7JA Llangefni
Anglesey - UK
T 01248 723 666
Info@LucasOil.co.uk - www.lucasoil.co.uk

Supplier
Lucas Oil Products Europe Ltd
Block 3 Harcourt Centre
Harcourt Road
Dublin 2
Ireland
T +44 344 225 5400
info@lucasoil.eu.com www.lucasoil.eu.com

1.4. Emergency telephone number

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

Country	Organisation/Company	Address	Emergency number	Comment
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

Country	Organisation/Company	Address	Emergency number	Comment
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]

Acute toxicity (oral), Category 4	H302
Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

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]

Hazard pictograms (CLP: Classification, Labelling, Packaging.) :

GHS07 GHS08 GHS09

Signal word (CLP) : Danger

Contains : Distillates (petroleum), hydrotreated light, Naphtha (petroleum), hydrotreated heavy (benzene <0.1%), Tricarbonyl(methylcyclopentadienyl)manganese, Heavy Aromatic Naphtha Solvent, Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%)

Hazard statements (CLP) : H302+H332 - Harmful if swallowed or if inhaled.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

Child-resistant fastening : Applicable

Tactile warning : Applicable

2.3. Other hazards

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
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) (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	Not classified
Distillates (petroleum), hydrotreated light	CAS-No.: 64742-47-8 EC-No.: 265-149-8 EC Index-No.: 649-422-00-2	0 – 60	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Naphtha (petroleum), hydrotreated heavy (benzene <0.1%) (Note P)	CAS-No.: 64742-48-9 EC-No.: 265-150-3 EC Index-No.: 649-327-00-6	0 – 60	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 heavy paraffinic (DMSO < 3%) (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
1-Propene, 2-methyl-, homopolymer	CAS-No.: 9003-27-4 EC-No.: 618-360-8	5 – 10	Not classified
Tricarbonyl(methylcyclopentadienyl)manganese	CAS-No.: 12108-13-3 EC-No.: 235-166-5	1 - 5	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 2 (Inhalation:dust,mist), H330 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Heavy Aromatic Naphtha Solvent	CAS-No.: 64742-94-5 EC-No.: 265-198-5 EC Index-No.: 649-424-00-3	1 - 3	Asp. Tox. 1, H304
Naphthalene	CAS-No.: 91-20-3 EC-No.: 202-049-5 EC Index-No.: 601-052-00-2	0.01 - 0.3	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2,4-trimethylbenzene	CAS-No.: 95-63-6 EC-No.: 202-436-9 EC Index-No.: 601-043-00-3	0.01 - 0.3	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
mesitylene; 1,3,5-trimethylbenzene	CAS-No.: 108-67-8 EC-No.: 203-604-4	<0.1	Flam. Liq. 3, H226 STOT SE 3, H335

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
	EC Index-No.: 601-025-00-5		Aquatic Chronic 2, H411
Toluene	CAS-No.: 108-88-3 EC-No.: 203-625-9 EC Index-No.: 601-021-00-3	<0.01	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 (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
Benzene (Note E (obsolete))	CAS-No.: 71-43-2 EC-No.: 200-753-7 EC Index-No.: 601-020-00-8	<0.01	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	CAS-No.: 100-41-4 EC-No.: 202-849-4 EC Index-No.: 601-023-00-4	<0.01	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304

Specific concentration limits		
Name	**Product identifier**	**Specific concentration limits**
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.
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 : Never give anything by mouth to an unconscious person. 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. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : Suspected of causing cancer.

Symptoms/effects after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed. May be fatal if swallowed and enters airways.

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 : Foam. Dry powder. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.

Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. 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 all eye and skin contact and do not breathe vapour and mist. 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.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

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 : Collect spillage. Store away from other materials. 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

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Keep away from Sources of ignition. No smoking.

Precautions for safe handling	:	Use personal protective equipment as required. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Use only outdoors or in a well-ventilated area. Avoid all eye and skin contact and do not breathe vapour and mist. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Hygiene measures	:	Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	:	Keep only in the original container in a cool well ventilated place. Keep in fireproof place. Keep container tightly closed.
Incompatible products	:	Strong bases. Strong acids. Strong oxidizers.
Incompatible materials	:	Sources of ignition. Direct sunlight. Heat sources.
Prohibitions on mixed storage	:	Incompatible materials.
Storage area	:	Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. 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)

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

Tricarbonyl(methylcyclopentadienyl)manganese (12108-13-3)	
Ireland - Occupational Exposure Limits	
OEL (8 hours ref) (mg/m³)	0.2 mg/m³
OEL (15 min ref) (mg/m3)	0.6 mg/m³
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m³)	0.2 mg/m³
WEL STEL (mg/m³)	0.6 mg/m³
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.

1,2,4-trimethylbenzene (95-63-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	1,2,4-Trimethylbenzene
IOEL TWA	100 mg/m³

1,2,4-trimethylbenzene (95-63-6)	
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

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
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.

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

mesitylene; 1,3,5-trimethylbenzene (108-67-8)	
WEL TWA (ppm)	25 ppm
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	5 mg/m³ 8-h (inhalable)
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)	
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

cumene (98-82-8)	
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)	
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

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

ethylbenzene (100-41-4)	
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)

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. 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.

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. EN166

8.2.2.2. Skin protection

Skin and body protection:
Impervious clothing

Hand protection:
Wear suitable gloves resistant to chemical penetration. nitrile rubber gloves. EN 374

8.2.2.3. Respiratory protection

Respiratory protection:
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Approved respirator

8.2.2.4. Thermal hazards

No data available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Prevent leakage or spillage.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	amber.
Odour	:	petroleum.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Combustible liquid
Explosive limits	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	76.67 °C
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	17.54 mm²/s @ 40 °C
Solubility	:	Not available
Log Kow	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50 °C	:	Not available
Density	:	0.863 g/cm³
Relative density	:	Not available
Relative vapour density at 20 °C	:	Not available
Particle size	:	Not applicable
Particle size distribution	:	Not applicable
Particle shape	:	Not applicable
Particle aspect ratio	:	Not applicable
Particle aggregation state	:	Not applicable
Particle agglomeration state	:	Not applicable
Particle specific surface area	:	Not applicable
Particle dustiness	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No data available

9.2.2. Other safety characteristics

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

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

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Harmful if inhaled.

Lucas Octane Booster	
ATE (oral)	1758.913 mg/kg bodyweight
ATE (dust,mist)	2.581 mg/l/4h

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 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

Naphtha (petroleum), hydrotreated heavy (benzene <0.1%) (64742-48-9)	
LD50 Oral rat	> 5000 mg/kg
LD50 Dermal rabbit	> 2000 mg/kg
LC50 Inhalation rat	> 5610 mg/m³

Tricarbonyl(methylcyclopentadienyl)manganese (12108-13-3)	
LD50 Oral rat	51.8 mg/kg
LD50 oral	58 mg/kg
LD50 Dermal rabbit	140 mg/kg
LD50 dermal	795 mg/kg
LC50 Inhalation rat	0.076 mg/l/4h male

Heavy Aromatic Naphtha Solvent (64742-94-5)	
LD50 Oral rat	> 5000 mg/kg
LD50 Dermal rabbit	> 2000 mg/kg
LC50 Inhalation rat	> 5.28 mg/l/4h
LC50 Inhalation rat (dust/mist)	> 5000 mg/l/4h

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

Naphthalene (91-20-3)	
LD50 Oral rat	490 mg/kg
LD50 Dermal rabbit	20 g/kg
LC50 Inhalation rat	> 340 mg/m³ 1 hour

mesitylene; 1,3,5-trimethylbenzene (108-67-8)	
LD50 Oral rat	5000 mg/kg
LD50 Dermal rat	> 4 ml/kg
LC50 Inhalation rat	24000 mg/m³

Distillates (petroleum), hydrotreated heavy paraffinic (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

Toluene (108-88-3)	
LD50 Oral rat	5580 mg/kg EU Method B.
LC50 Inhalation rat	> 20 mg/l/4h OECD Guideline 403

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

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified. Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified. Based on available data, the classification criteria are not met

Carcinogenicity : Not classified. Based on available data, the classification criteria are not met

Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans

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

Reproductive toxicity : Not classified. Based on available data, the classification criteria are not met

STOT-single exposure : May cause drowsiness or dizziness.

Distillates (petroleum), hydrotreated light (64742-47-8)	
STOT-single exposure	May cause drowsiness or dizziness.

Naphtha (petroleum), hydrotreated heavy (benzene <0.1%) (64742-48-9)	
STOT-single exposure	May cause drowsiness or dizziness.

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.

Toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.

cumene (98-82-8)	
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.

Aspiration hazard : May be fatal if swallowed and enters airways.

Lucas Octane Booster	
Viscosity, kinematic	17.54 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 (acute) : Not classified. Based on available data, the classification criteria are not met

Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (KV > 20.5 cSt) (64742-54-7)	
EC50 crustacea	> 10000 mg/l

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

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

Tricarbonyl(methylcyclopentadienyl)manganese (12108-13-3)	
LC50 fish 1	0.21 mg/l 96 h
EC50 crustacea	0.83 mg/l 48 h

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

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

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

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)	
EC50 crustacea	> 10000 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

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

cumene (98-82-8)	
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'

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)
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 (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'

12.2. Persistence and degradability

Lucas Octane Booster	
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

Heavy Aromatic Naphtha Solvent (64742-94-5)	
Persistence and degradability	Not rapidly degradable.
Biodegradation	39 %

mesitylene; 1,3,5-trimethylbenzene (108-67-8)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	0 % O2 consumption, 192h

Toluene (108-88-3)	
Persistence and degradability	Readily biodegradable.

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.

12.3. Bioaccumulative potential

Lucas Octane Booster	
Bioaccumulative potential	Not established.
Distillates (petroleum), hydrotreated light (64742-47-8)	
Log Kow	2.1 – 5
Bioaccumulative potential	Bioaccumulative potential.
Tricarbonyl(methylcyclopentadienyl)manganese (12108-13-3)	
Log Pow	3.4
Naphthalene (91-20-3)	
BCF fish 1	≥ 427 (427 – 1158)
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
Toluene (108-88-3)	
Bioconcentration factor (BCF REACH)	90
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.

12.4. Mobility in soil

Lucas Octane Booster	
Ecology - soil	Not established.
Heavy Aromatic Naphtha Solvent (64742-94-5)	
Mobility in soil	Migrates to soil.

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

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.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

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. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha)

Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha)

Proper Shipping Name (IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha)

Proper Shipping Name (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha)

Proper Shipping Name (RID) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha)

Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha), 9, III, (E)

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha), 9, III, MARINE POLLUTANT

Transport document description (IATA) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha), 9, III

Transport document description (ADN) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha), 9, III

Transport document description (RID) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tricarbonyl(methylcyclopentadienyl)manganese; petroleum distillates/naphtha), 9, III

14.3. Transport hazard class(es)

ADR

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

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

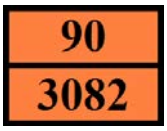
Classification code (ADR) : M6

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

Limited quantities (ADR) : 5l

Excepted quantities (ADR) : E1

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

Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions (ADR)	:	TP1, TP29
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 and handling (ADR)	:	CV13
Hazard identification number (Kemler No.)	:	90
Orange plates	:	
Tunnel restriction code (ADR)	:	E

Transport by sea

Special provisions (IMDG)	:	274, 335, 969
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01
Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP2, 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
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
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 (RID)	:	TP1, TP29
Tank codes for RID tanks (RID)	:	LGBV

Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W12
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW13, CW31
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

Contains no REACH substances with Annex XVII restrictions
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 chemical safety assessment has been carried out.

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
	STEL: Short Term Exposure Limits
	TWA: Time Weighted Average

Data sources	:	Component Supplier SDSs. 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. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.
Other information	:	None.

Full text of H- and EUH-statements	
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
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

Full text of H- and EUH-statements	
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
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.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
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.
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

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]		
Acute Tox. 4 (Oral)	H302	Calculation method
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Calculation method
Asp. Tox. 1	H304	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.