Lighter Fuel

Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.
Issue date: 12/12/2024 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Trade name : Lighter Fuel
UFI : FF00-G0CQ-R005-48NY

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 : Consumer use
Use of the substance/mixture : Fuels
Lighters

1.2.2. Uses advised against

Uses other than those recommended

1.3. Details of the supplier of the safety data sheet

Zippo UK Ltd.
Barley Mow Centre
10 Barley Mow Passage
Chiswick Greater London W4 4PH
United Kingdom
+ 44 (0) 208 964 0666
EMEAinfo@zippo.com

1.4. Emergency telephone number

Emergency number : ChemTel LLC +1-(813)-248-0585 (24 h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GB CLP (SI 2019:720 as amended)

Flammable liquids, Category 2	H225
Skin corrosion/irritation, Category 2	H315
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

Highly flammable liquid and vapour. May cause drowsiness or dizziness. Causes skin irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to GB CLP (SI 2019:720 as amended)

Hazard pictograms (GB CLP) :



GHS02 GHS07 GHS08 GHS09

Signal word (GB CLP) : Danger
Contains : Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics; Hydrocarbons, C6, isoalkanes, <5% n-hexane; cyclohexane; Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics; hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Hazard statements (GB CLP)	:	H225 - Highly flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H336 - May cause drowsiness or dizziness. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (GB CLP)	:	P102 - Keep out of reach of children. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P331 - Do NOT induce vomiting. P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Component	
Substance(s) not meeting the PBT criteria of UK REACH regulation, in accordance with Annex XIII	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-), Hydrocarbons, C6, isoalkanes, <5% n-hexane (-), cyclohexane (110-82-7), Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics, hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
Substance(s) not meeting the vPvB criteria of UK REACH regulation, in accordance with Annex XIII	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-), Hydrocarbons, C6, isoalkanes, <5% n-hexane (-), cyclohexane (110-82-7), Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics, hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Component	
Substance(s) not included in the list established in accordance with Article 59(1) of UK REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in GB BPR and GB PPP	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics(-), Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics, Hydrocarbons, C6, isoalkanes, <5% n-hexane(-), hydrocarbons, C7, n-alkanes, isoalkanes, cyclics, cyclohexane(110-82-7)

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GB CLP (SI 2019:720 as amended)
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	CAS-No.: - EC-No.: 920-750-0	≤ 70	Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	EC-No.: 927-241-2	≤ 30	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
Hydrocarbons, C6, isoalkanes, <5% n-hexane	CAS-No.: - EC-No.: 931-254-9	< 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Name	Product identifier	%	Classification according to GB CLP (SI 2019:720 as amended)
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	EC-No.: 927-510-4	< 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
cyclohexane	CAS-No.: 110-82-7 EC-No.: 203-806-2	< 2	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

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 : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Move the affected person to the fresh air. Get medical attention immediately if symptoms occur.

First-aid measures after skin contact : Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If symptoms persist, consult a doctor. Rinse skin with water/shower. Take off immediately all contaminated clothing. 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. If irritation persists, consult an eye specialist. Rinse eyes with water as a precaution.

First-aid measures after ingestion : Immediately get medical attention. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. In high concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.

Symptoms/effects after skin contact : Irritation. Redness. Burning sensation. May cause skin dryness or cracking.

Symptoms/effects after eye contact : Exposed may experience eye tearing, redness and discomfort.

Symptoms/effects after ingestion : Risk of lung oedema. Ingestion may cause nausea and vomiting.

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

Medical personnel should be made aware of substance(s) involved and take measures for self protection. Wear suitable protective clothing. Aspiration into lungs can cause a chemical pneumonia. Immediately get medical attention. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : For small fire: Dry chemical. Carbon dioxide (CO2). Sand. For large fire: Foam. Water spray jet. Water mist. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : The vapours are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars. Highly flammable liquid and vapour.

Explosion hazard	:	No direct explosion hazard.
Hazardous decomposition products in case of fire	:	Thermal decomposition may produce : Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions	:	Use water spray jet to protect personnel and to cool endangered containers. Use water curtains to contain the toxic clouds. Do not enter fire area without proper protective equipment, including respiratory protection.
Protective equipment for firefighters	:	Wear self-contained breathing apparatus and protective suit (see section 8). Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment	:	Avoid contact with skin, eyes and clothing. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Do not breathe fumes. Ensure adequate ventilation. Remove ignition sources. Use non-sparking tools.
Emergency procedures	:	Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing vapours, mist. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment. Prevent spread over a wide area (e.g. by containment or oil barriers). Keep away from all drains, surface and ground water. Use the appropriate container to avoid environmental contamination. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

For containment	:	Cover spill with non combustible material, e.g.: sand/earth. Ensure waste is collected and contained. Ventilate affected area. Isolated drainage to prevent discharge to soil. Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	:	Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For disposal of contaminated materials refer to section 13 : "Disposal considerations". For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	:	Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values. Wear personal protective clothing (see chapter 8). Wash hands before breaks and after work. Keep container tightly closed and in a well-ventilated place. Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing vapours, mist. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Keep containers tightly closed and properly labelled. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity. Keep away from food, drink and animal feedingstuffs. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children. Smoking is forbidden. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

May not be used for other purposes than specified in section 1.2 of this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

cyclohexane (110-82-7)	
United Kingdom - Occupational Exposure Limits	
Local name	Cyclohexane
WEL TWA (OEL TWA)	350 mg/m³
	100 ppm
WEL STEL (OEL STEL)	1050 mg/m³
	300 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	≥ µg/m³
Long-term - systemic effects, dermal	773 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2035 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	699 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	608 mg/m³
Long-term - systemic effects, dermal	699 mg/kg bodyweight/day

Hydrocarbons, C6, isoalkanes, <5% n-hexane (-)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	13964 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5306 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	1301 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1131 mg/m³
Long-term - systemic effects, dermal	1377 mg/kg bodyweight/day

cyclohexane (110-82-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	1400 mg/m³
Acute - local effects, inhalation	1400 mg/m³
Long-term - systemic effects, dermal	2016 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	700 mg/m³
Long-term - local effects, inhalation	700 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	412 mg/m³
Acute - local effects, inhalation	412 mg/m³
Long-term - systemic effects,oral	59.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	206 mg/m³
Long-term - systemic effects, dermal	1186 mg/kg bodyweight/day
Long-term - local effects, inhalation	206 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	44.7 µg/l
PNEC aqua (marine water)	4.47 µg/l
PNEC aqua (intermittent, freshwater)	9 µg/l
PNEC aqua (intermittent, marine water)	0.9 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	0.36 mg/kg dwt

cyclohexane (110-82-7)	
PNEC (Soil)	
PNEC soil	0.694 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	3.24 mg/l

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	77 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	871 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	46 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	185 mg/m³
Long-term - systemic effects, dermal	46 mg/kg bodyweight/day

hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	300 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2085 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	149 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	447 mg/m³
Long-term - systemic effects, dermal	149 mg/kg bodyweight/day

8.1.5. Control banding

No additional information available

8.2. Exposure controls

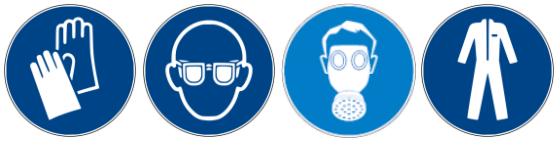
8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Provide adequate ventilation. Ensure good ventilation of the work station. Exposures should be minimized in accordance with good industrial hygiene practices.

8.2.2. Personal protection equipment

Personal protective equipment:
Wear recommended personal protective equipment. Gloves. Wear eye protection. Use breathing mask and filter suitable for organic gases and vapours.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:
Safety glasses. EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Safety gloves. ISO 374-1/EN 374. Breakthrough time : > 480 min. Layer thickness : > 0,11 mm. Use gloves respecting all the conditions and within the limits set by the manufacturer. Replace gloves immediately in case of cuts, holes or other signs of damages or degradation. If necessary, refer to the EN 374 standard.

Other skin protection
Materials for protective clothing:
protective clothing.

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Avoid inhalation of vapours. Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmospheres.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.
Other information:
Regulation on Use of Personal Protective Equipments in Workplaces published in the Official Journal numbered 28695 on July 2, 2013. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless.
Odour	:	Characteristic.
Odour threshold	:	Not available
pH	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	> 104.1 °C
Flash point	:	- 1 °C
Lower explosion limit	:	1.8 vol %
Upper explosion limit	:	9.6 vol %
Vapour pressure	:	Not determined
Vapour pressure at 50°C	:	Not determined
Relative vapour density at 20°C	:	Not available
Relative density	:	Not available
Density	:	≈ 0.747 g/cm³
Solubility	:	Insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Auto-ignition temperature	:	270 °C
Decomposition temperature	:	Not available
Viscosity, kinematic	:	Not determined
Explosive properties	:	Not available

9.2. Other information

Particle characteristics	:	Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Avoid high temperatures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take action to prevent static discharges. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
LD50 oral rat	> 5000 mg/kg
LD50 oral	> 5840 mg/kg bodyweight
LD50 dermal rat	2800 – 3100 mg/kg bodyweight Animal: rat
LD50 dermal	> 2920 mg/kg bodyweight
LC50 Inhalation - Rat	> 23.3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 23300 mg/l

Hydrocarbons, C6, isoalkanes, <5% n-hexane (-)	
LD50 oral rat	> 5000 mg/kg OECD 401
LD50 dermal rat	> 3000 mg/kg OECD 402
LC50 Inhalation - Rat (Dust/Mist)	> 20 mg/l/4h OECD 403

cyclohexane (110-82-7)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 32.88 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : 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)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : May cause drowsiness or dizziness.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
STOT-single exposure	May cause drowsiness or dizziness.

Hydrocarbons, C6, isoalkanes, <5% n-hexane (-)	
STOT-single exposure	May cause drowsiness or dizziness.

cyclohexane (110-82-7)	
STOT-single exposure	May cause drowsiness or dizziness.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	
STOT-single exposure	May cause drowsiness or dizziness.

hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	
STOT-single exposure	May cause drowsiness or dizziness.

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

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
NOAEC (inhalation, rat, vapour, 90 days)	24.3 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

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

Lighter Fuel	
Viscosity, kinematic	Not determined

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
Viscosity, kinematic	0.715 – 0.786 mm²/s Temp.: 'other:' Parameter: 'kinematic viscosity (in mm²/s)'

hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	
Viscosity, kinematic	0.67 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance/mixture has no endocrine disrupting properties

11.2.2. Other information

Other information : No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.
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.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
LC50 - Fish [1]	1 – 10 ppm
EC50 - Crustacea [1]	1 – 10
EC50 - Other aquatic organisms [1]	4.6 mg/l waterflea
EC50 - Other aquatic organisms [2]	10 mg/l
LOEC (chronic)	0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
NOEC (chronic)	0.17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Hydrocarbons, C6, isoalkanes, <5% n-hexane (-)	
LC50 - Fish [1]	18.27 mg/l Oncorhynchus mikiss - ECHA
EC50 - Crustacea [1]	31.9 mg/l Daphnia magna - ECHA
ErC50 algae	13.56 mg/l Pseudokirchneriella subcapitata - CONCAWE, Brussels, Belgium (2009)
NOEC chronic fish	4.089 mg/l Oncorhynchus mykiss - CONCAWE, Brussels, Belgium (2009)
NOEC chronic crustacea	4.888 mg/l Daphnia magna - CONCAWE, Brussels, Belgium

hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	
LOEC (chronic)	0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

Lighter Fuel	
Persistence and degradability	Rapidly degradable

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
Persistence and degradability	Readily biodegradable.

Hydrocarbons, C6, isoalkanes, <5% n-hexane (-)	
Persistence and degradability	Rapidly degradable

cyclohexane (110-82-7)	
Persistence and degradability	Readily biodegradable.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Persistence and degradability	Biodegradable.

hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	
Partition coefficient n-octanol/water (Log Pow)	4.85

Hydrocarbons, C6, isoalkanes, <5% n-hexane (-)	
BCF - Fish [1]	501.187 Pimephales promelas
Partition coefficient n-octanol/water (Log Pow)	3.6

12.4. Mobility in soil

Lighter Fuel	
Additional information	Material insoluble in water

12.5. Results of PBT and vPvB assessment

Component	
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics (-)	This product does not contain substances at ≥0.1% that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at ≥0.1% that meet the vPvB criteria of UK REACH regulation, annex XIII
Hydrocarbons, C6, isoalkanes, <5% n-hexane (-)	This product does not contain substances at ≥0.1% that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at ≥0.1% that meet the vPvB criteria of UK REACH regulation, annex XIII
cyclohexane (110-82-7)	This product does not contain substances at ≥0.1% that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at ≥0.1% that meet the vPvB criteria of UK REACH regulation, annex XIII
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics	This product does not contain substances at ≥0.1% that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at ≥0.1% that meet the vPvB criteria of UK REACH regulation, annex XIII
hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	This product does not contain substances at ≥0.1% that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at ≥0.1% that meet the vPvB criteria of UK REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Waste packaging should be recycled. Recycle or dispose of in compliance with current legislation. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Disposal must be done according to official regulations.

Additional information : Flammable vapours may accumulate in the container. Do not re-use empty containers.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 3295	UN 3295	UN 3295	UN 3295	UN 3295
14.2. UN proper shipping name				
HYDROCARBONS, LIQUID, N.O.S. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics)	HYDROCARBONS, LIQUID, N.O.S. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics)	Hydrocarbons, liquid, n.o.s. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; hydocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics)	HYDROCARBONS, LIQUID, N.O.S. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; hydocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics)	HYDROCARBONS, LIQUID, N.O.S. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; hydocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics)

ADR	IMDG	IATA	ADN	RID
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: True	Dangerous for the environment: True Marine pollutant: Yes	Dangerous for the environment: True	Dangerous for the environment: True	Dangerous for the environment: True
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Special provisions (ADR)	:	640C
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T7
Portable tank and bulk container special provisions (ADR)	:	TP1, TP8, TP28
Tank code (ADR)	:	L1.5BN
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	2
Special provisions for carriage - Operation (ADR)	:	S2, S20
Hazard identification number (Kemler No.)	:	33
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E
EAC code	:	3YE

Transport by sea

Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T7
Tank special provisions (IMDG)	:	TP1, TP8, TP28
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-D
Stowage category (IMDG)	:	B
Properties and observations (IMDG)	:	Immiscible with water.

Air transport

PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L

CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A3, A324
ERG code (IATA)	:	3H

Inland waterway transport

Classification code (ADN)	:	F1
Special provisions (ADN)	:	640C
Limited quantities (ADN)	:	1 L
Excepted quantities (ADN)	:	E2
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	1

Rail transport

Classification code (RID)	:	F1
Special provisions (RID)	:	640C
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T7
Portable tank and bulk container special provisions (RID)	:	TP1, TP8, TP28
Tank codes for RID tanks (RID)	:	L1.5BN
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	CE7
Hazard identification number (RID)	:	33

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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

UK REACH Annex XVII (Restriction List)

UK restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(a)	Lighter Fuel ; Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Hydrocarbons, C6, isoalkanes, <5% n-hexane ; cyclohexane ; Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics ; hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	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

UK restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(b)	Lighter Fuel ; Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Hydrocarbons, C6, isoalkanes, <5% n-hexane ; cyclohexane ; Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics ; hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	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)	Lighter Fuel ; Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Hydrocarbons, C6, isoalkanes, <5% n-hexane ; cyclohexane ; Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics ; hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	Lighter Fuel ; Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Hydrocarbons, C6, isoalkanes, <5% n-hexane ; cyclohexane ; Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics ; hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	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 the GB classification and labelling list or not.
57.	cyclohexane	Cyclohexane

UK REACH Annex XIV (Authorisation List)

This product contains no substance(s) listed on UK REACH Annex XIV (Authorisation List) equal to or above the 0.1% level of disclosure

UK REACH Candidate List (SVHC)

Contains no substance(s) listed on the UK REACH Candidate List

Seveso Directive (Disaster Risk Reduction)

Seveso Additional information : P5a, P5b, P5c

GB PIC regulation (Prior Informed Conset)

This product contains no substance(s) listed on the GB PIC List equal to or above the level of SDS disclosure

POP Regulation (Persistent Organic Pollutants)

This product contains no substance(s) listed on the GB POP List equal to or above the level of SDS disclosure

Ozone Regulation (S.I. No. 168 of 2015)

This product contains no substance(s) listed on the GB Ozone Depletion List equal to or above the level of SDS disclosure

Control of Poisons and Explosives Precursors Act

This product contains no substance(s) listed as a reportable poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure
This product contains no substance(s) listed as a reportable explosive precursor on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure
This substance is not listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations

Drug Precursors Regulation (273/2004)

This product contains no substance(s) listed on the GB Drug Precursors List equal to or above the level of SDS disclosure

15.1.2. Other Information

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Effective concentration for 50 percent of test population (median effective concentration)
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50 percent of test population (median lethal concentration)
LD50	Lethal dose for 50 percent of test population (median lethal dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways
SDS	Safety Data Sheet
STP	Sewage treatment plant

Abbreviations and acronyms:	
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

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
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.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
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.
Skin Irrit. 2	Skin corrosion/irritation, 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]:		
Flam. Liq. 2	H225	On basis of test data
Skin Irrit. 2	H315	Calculation method
STOT SE 3	H336	Calculation method
Asp. Tox. 1	H304	Expert judgement
Aquatic Chronic 2	H411	Calculation method

Safety Data Sheet (SDS), UK

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.