

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

#### 1.1. Product identifier

Product form	: Substance (UVCB)
Trade name	: D-Limonene
EC-No.	: 232-433-8
CAS-No.	: 8028-48-6
REACH registration No.	: 01-2119493353-35
Product code	: DLIM
Other means of identification	: Essential oil of orange obtained from the peel of Citrus sinensis (Rutaceae) by expression and/or distillation, including cold pressed, distilled, terpenes and essence qualities

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

##### Relevant identified uses

Main use category	: Industrial use, Professional use
Use of the substance/mixture	: Cleaning/washing agents and additives Cosmetics, personal care products Food/feedstuff additives Pharmaceuticals Fragrance

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

Valet-Chem Ltd  
Summit Close  
NG17 8GJ Kirkby In Ashfield Nottingham, Nottinghamshire  
United Kingdom  
T T +44 (0) 844 414 0987  
[info@valetchem.co.uk](mailto:info@valetchem.co.uk)

##### Supplier information

Leading Solvents Ireland Ltd  
The Courtyard, Manor House  
3 Church Road  
Malahide, Co.Dubin  
Ireland  
T +353 1 845 7660

#### 1.4. Emergency telephone number

Emergency number : +44 (0) 844 414 0987 (Office hours only)

Country/Area	Organisation	Emergency number
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	NHS 111/NHS 24/NHS Direct.	111 0845 4647 or call a doctor

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3	H226
Skin corrosion/irritation, Category 2	H315
Skin sensitisation, Category 1	H317
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

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### Adverse physicochemical, human health and environmental effects

See section 11 for toxicological information. See section 9/10 for physicochemical information. See section 12 for environmental information.

## 2.2. Label elements

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

Hazard pictograms (CLP)



GHS02

GHS07

GHS08

GHS09

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.  
H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H411 - Toxic to aquatic life with long lasting effects.  
Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 - Avoid breathing spray, vapours.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type

: UVCB

Name	Product identifier	%
D-Limonene, Orange Terpenes, Citrus Terpenes	CAS-No.: 8028-48-6 EC-No.: 232-433-8 REACH-no: 01-2119493353-35	100

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

: Take off all contaminated clothing immediately . Wash contaminated clothing before reuse.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance.

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First-aid measures after skin contact	: 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	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed to do so by a physician. Call a physician immediately.

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

Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact	: irritation (itching, redness, blistering).
Symptoms/effects after eye contact	: redness, itching, tears. Causes eye irritation. stinging.
Symptoms/effects after ingestion	: May cause irritation to the digestive tract.

### 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	: 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 vapour may be invisible, heavier than air and spread along ground. Vapours may form explosive mixture with air. Flash back possible over considerable distance. Heating will cause a rise in pressure with a risk of bursting.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Advice for firefighters

Precautionary measures fire	: Evacuate area.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Stop leak if safe to do so.
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#### For non-emergency personnel

Protective equipment	: Use personal protective equipment as required. Keep away unprotected persons. Do not breathe gas, fumes, vapour or spray.
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

#### 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".
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### 6.2. Environmental precautions

Avoid release to the environment. Do not flush into surface water or sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

### 6.4. Reference to other sections

See Section 1 for emergency contact information.  
See Section 8 for information on personal protective equipment.  
See Section 13 for waste treatment information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. 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. Avoid contact with skin and eyes. Do not breathe gas, fumes, vapour or spray.

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. Take precautionary measures against static discharge.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Keep in an area equipped with solvent resistant flooring.

Incompatible materials : Store away from incompatible materials (see section 10).

Heat and ignition sources : The vapour may be invisible, heavier than air and spread along ground. Can form explosive mixture with air.

Information on mixed storage : Keep away from food, drink and animal feedingstuffs.

Storage area : Store away from heat.

Packaging materials : Keep only in the original container in a cool, well-ventilated place away from combustible materials.

#### Germany

Storage class (LGK, TRGS 510)  
Joint storage table

: LGK 3 - Flammable liquids

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for : LGK 1, LGK 2A, LGK 4.1A, LGK 4.1B, LGK 4.2, LGK 4.3, LGK 5.1A, LGK 5.1C, LGK 5.2, LGK 6.1B, LGK 6.2, LGK 7

Joint storage with restrictions permitted for : LGK 5.1B, LGK 6.1D, LGK 11, LGK 10-13

Joint storage permitted for : LGK 2B, LGK 3, LGK 6.1A, LGK 6.1C, LGK 8A, LGK 8B, LGK 10, LGK 12, LGK 13

#### Switzerland

Storage class (LK) : LK 3 - Flammable liquids

### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### DNEL and PNEC

D-Limonene (8028-48-6)	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, dermal	185.8 µg/cm <sup>2</sup>
Long-term - systemic effects, dermal	8.89 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	31.1 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - local effects, dermal	92.9 µg/cm <sup>2</sup>
Long-term - systemic effects, oral	4.44 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	7.78 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	4.44 mg/kg bodyweight/day
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	5.4 µg/l
PNEC aqua (marine water)	0.54 µg/l
PNEC aqua (intermittent, freshwater)	5.77 µg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	1.3 mg/kg dwt
PNEC sediment (marine water)	0.13 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.261 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	2.1 mg/l

#### 8.2. Exposure controls

##### Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station. Provide sufficient air exchange and/or exhaust.

##### Personal protection equipment

###### Personal protective equipment symbol(s):



##### Eye and face protection

###### Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses, Safety goggles	Dust, Fine dust, Liquid, Droplet, spray	With side shields	EN 166

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### Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Protective gloves should be replaced at first signs of wear.

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	≥ 0.425		EN ISO 374

### Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
		Vapour protection, Protection for Liquid particles	EN 14387

### Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless. Pale yellow.
Odour	: Not available
Odour threshold	: Not available
Melting point	: -74 °C
Freezing point	: Not available
Boiling point	: 175 – 178 °C Atm. press.: 1026 hPa
Flammability	: Not available
Lower explosion limit	: 0.7 Vol-%
Upper explosion limit	: 61 Vol-%
Flash point	: 46 °C closed cup
Auto-ignition temperature	: 245 °C
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 1.17 mm <sup>2</sup> /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm <sup>2</sup> /s)'
Viscosity, dynamic	: 0.99 mPa·s Temp.: '20°C' Parameter: 'dynamic viscosity (in mPa s)'
Solubility	: Soluble in alcohols. Water: insoluble in water
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: 5.3
Vapour pressure	: 186.4 Pa Temp.: 25 °C
Vapour pressure at 50°C	: Not available
Density	: 0.8455 g/cm <sup>3</sup> Type: 'density' Temp.: 20 °C
Relative density	: 0.847 Type: 'relative density' Temp.: 20 °C
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

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### 9.2. Other information

#### Other safety characteristics

Refractive index : 1.473

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Flammable liquid and vapour.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition. Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

### 10.5. Incompatible materials

Combustible materials. Oxidizing agent. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 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

D-Limonene (8028-48-6)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: other:
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Animal sex: female, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: other:

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : May cause an allergic skin reaction.  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : May be fatal if swallowed and enters airways.

### D-Limonene (8028-48-6)

Viscosity, kinematic	1.17 mm <sup>2</sup> /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm <sup>2</sup> /s)'
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### 11.2. Information on other hazards

No additional information available

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### SECTION 12: Ecological information

#### 12.1. Toxicity

- Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
- Hazardous to the aquatic environment, short-term (acute) : Not classified
- Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

#### 12.2. Persistence and degradability

##### D-Limonene (8028-48-6)

Persistence and degradability	Not rapidly degradable
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#### 12.3. Bioaccumulative potential

##### D-Limonene (8028-48-6)

Partition coefficient n-octanol/water (Log Pow)	5.3
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#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

##### D-Limonene (8028-48-6)

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 additional information available

#### 12.7. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal together with normal waste is not allowed.
- Product/Packaging disposal recommendations : Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services. This product shall be disposed of or recovered in compliance with Directive 2008/98/EC on waste as lastly amended.
- Additional information : Flammable vapours may accumulate in the container.

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HP Code

- : HP3 - "Flammable:"  
 – flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;  
 – flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;  
 – flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;  
 – flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;  
 – water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;  
 – other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.
- 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.
- HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.
- HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.
- HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

### SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
UN 2319	UN 2319	UN 2319	UN 2319	UN 2319
<b>14.2. UN proper shipping name</b>				
TERPENE HYDROCARBONS, N.O.S. (CITRUS TERPENES)	TERPENE HYDROCARBONS, N.O.S. (CITRUS TERPENES)	Terpene hydrocarbons, n.o.s. (CITRUS TERPENES)	TERPENE HYDROCARBONS, N.O.S. (CITRUS TERPENES)	TERPENE HYDROCARBONS, N.O.S. (CITRUS TERPENES)
<b>Transport document description</b>				
UN 2319 TERPENE HYDROCARBONS, N.O.S. (CITRUS TERPENES), 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 2319 TERPENE HYDROCARBONS, N.O.S. (CITRUS TERPENES), 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (32°C c.c.)	UN 2319 Terpene hydrocarbons, n.o.s. (CITRUS TERPENES), 3, III, ENVIRONMENTALLY HAZARDOUS	UN 2319 TERPENE HYDROCARBONS, N.O.S. (CITRUS TERPENES), 3, III, ENVIRONMENTALLY HAZARDOUS	UN 2319 TERPENE HYDROCARBONS, N.O.S. (CITRUS TERPENES), 3, III, ENVIRONMENTALLY HAZARDOUS
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
<b>14.4. Packing group</b>				
III	III	III	III	III

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ADR	IMDG	IATA	ADN	RID
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-E EmS-No. (Spillage): S-D	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR)	: F1
Limited quantities (ADR)	: 5I
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)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	: 
Tunnel restriction code (ADR)	: D/E
EAC code	: 3Y

#### Transport by sea

Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
Stowage category (IMDG)	: A
Flash point (IMDG)	: 32°C to 49°C c.c.
Properties and observations (IMDG)	: Colourless or yellowish liquids. Flashpoint: 32°C to 49°C c.c. Immiscible with water.

#### Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
ERG code (IATA)	: 3L

#### Inland waterway transport

Classification code (ADN)	: F1
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01

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Number of blue cones/lights (ADN) : 0

### Rail transport

Classification code (RID) : F1  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
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) : LGBF  
Transport category (RID) : 3  
Special provisions for carriage – Packages (RID) : W12  
Colis express (express parcels) (RID) : CE4  
Hazard identification number (RID) : 30

### 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

#### EU-Regulations

##### REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

##### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

##### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

##### Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

##### Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

##### Explosives Precursors Regulation (EU 2019/1148)

Not listed on the Explosives Precursors list (EU)

##### Drug Precursors Regulation (EC 273/2004)

Not listed on the Drug Precursors list (EU)

#### National regulations

##### Austria

Ordinance on Flammable Liquids (VbF) : Hazard category 3: Flammable (flash point 23 - 60 °C. Excluding gas oils and petroleum).  
Toxic Substances Ordinance 2000 : Is not subject to the Toxic Substances Ordinance 2000.

##### Denmark

Class for fire hazard : Class II-1  
Store unit : 5 liter  
Classification remarks : R10 <H226;H304;H315;H317;H411>; Emergency management guidelines for the storage of flammable liquids must be followed

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Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

### Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 3824).

Major Accidents Ordinance (12. BImSchV) : Is listed in the Major Accidents Ordinance (12. BImSchV)

Major Accidents Ordinance (12. BImSchV)				
Number	Code	Title	Lower-tier	Upper-tier
1.2.5.1	P5a	Flammable liquids. Flammable liquids of category 1; flammable liquids of category 2 or 3 maintained at a temperature above their boiling point; other liquids with a flash point of $\leq 60$ °C maintained at a temperature above their boiling point	10,000 kg	50,000 kg
1.2.5.2	P5b	Flammable liquids. Flammable liquids of category 2 or 3, where special processing conditions such as high pressure or high temperature can lead to the risk of accidents; other liquids with a flash point of $\leq 60$ °C, where special processing conditions such as high pressure or high temperature can lead to the risk of accidents	50,000 kg	200,000 kg
1.2.5.3	P5c	Flammable liquids of categories 2 or 3, not covered under P5a and P5b	5,000,000 kg	50,000,000 kg
1.3.2	E2	Hazardous to the aquatic environment, Chronic 2	200,000 kg	500,000 kg

### Netherlands

ABM category : A(2) - toxic for aquatic organisms, may have longterm hazardous effects in aquatic environment

SZW-lijst van kankerverwekkende stoffen : D-Limonene, Orange Terpenes, Citrus Terpenes is listed

SZW-lijst van mutagene stoffen : D-Limonene, Orange Terpenes, Citrus Terpenes is listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – : The substance is not listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

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### Poland

#### Polish National Regulations

- : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).  
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).  
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).  
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).  
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).  
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).  
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)  
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).  
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).  
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)  
Regulation of the Minister of Health of 25 August 2015 on the method of marking places, pipelines, and containers and tanks used for storing or containing hazardous substances or hazardous mixtures (J.o.L. 2015, item 1368 as amended)

### Spain

#### Royal Decree 665/1997

- : Is not subject to the Royal Decree 665/1997

### 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	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer

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Abbreviations and acronyms:	
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	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	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstracts 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 Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU

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.