

SECTION 1: Identification

1.1. GHS Product identifier

Product form : Substance
Trade name : LEMON ESSENTIAL OIL 100% pure and natural ITALY
Type of product : UVCB substance
EC-No. : 284-515-8
CAS-No. : 84929-31-7
UN-No. (ADR) : 1169

1.2 Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Aromatic raw material for professional use.

1.4. Supplier's details

Supplier

Albert Vieille SAS
629 Route de Grasse
BP 217
06227 VALLAURIS - FRANCE
T 04 93 64 16 72 - F 04 93 64 80 07
info@albertvieille.com

1.5. Emergency phone number

No additional information available

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Flammable liquids, Category 3	H226	On basis of test data
Acute toxicity (oral) Not classified		On basis of test data
Acute toxicity (dermal) Not classified		On basis of test data
Skin corrosion/irritation, Category 2	H315	Calculation method
Skin sensitisation, Category 1	H317	Calculation method
Reproductive toxicity, Category 2	H361	Calculation method
Aspiration hazard, Category 1	H304	Calculation method
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400	Calculation method
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411	Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Flammable liquid and vapour, Causes skin irritation, May cause an allergic skin reaction, May be fatal if swallowed and enters airways, Very toxic to aquatic life with long lasting effects.

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN) :



GHS02

GHS07

GHS08

GHS09

Signal word (GHS UN) : Danger

Hazard statements (GHS UN) :

- 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
- H361 - Suspected of damaging fertility or the unborn child
- H400 - Very toxic to aquatic life
- H411 - Toxic to aquatic life with long lasting effects

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Precautionary statements (GHS UN)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground and bond container and receiving equipment. P241 - Use explosion-proof equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash ... thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/.... P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... P302+P352 - IF ON SKIN: Wash with plenty of water/.... P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P308+P313 - IF exposed or concerned: Get medical advice/attention. P321 - Specific treatment (see ... on this label). P331 - Do NOT induce vomiting. P332+P313 - If skin irritation occurs: Get medical advice/attention. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P370+P378 - In case of fire: Use ... to extinguish. P391 - Collect spillage. P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up. P501 - Dispose of contents/container to
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2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	: LEMON ESSENTIAL OIL 100% pure and natural ITALY
CAS-No.	: 84929-31-7
EC-No.	: 284-515-8
Substance identification codes: See section 1.1	

Name	Product identifier	%	Classification according to the United Nations GHS
dipentene; limonene	(CAS-No.) 138-86-3	≤ 68	Flammable liquids, Category 3, H226 Skin corrosion/irritation, Category 2, H315 Skin sensitisation, category 1B, H317 Aspiration hazard, Category 1, H304 Hazardous to the aquatic environment — Acute Hazard, Category 1, H400 Hazardous to the aquatic environment — Chronic Hazard, Category 3, H412
beta-Pinene	(CAS-No.) 127-91-3	≤ 17	Flammable liquids, Category 3, H226 Skin corrosion/irritation, Category 2, H315 Skin sensitisation, category 1B, H317 Aspiration hazard, Category 1, H304 Hazardous to the aquatic environment — Acute Hazard, Category 1, H400 Hazardous to the aquatic environment — Chronic Hazard, Category 1, H410

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gamma-Terpinene	(CAS-No.) 99-85-4	≤ 12	Flammable liquids, Category 3, H226 Acute toxicity (oral), Category 5, H303 Skin corrosion/irritation, Category 3, H316 Reproductive toxicity, Category 2, H361 Aspiration hazard, Category 1, H304
alpha-Pinene	(CAS-No.) 80-56-8	≤ 3	Flammable liquids, Category 3, H226 Acute toxicity (oral), Category 4, H302 Skin corrosion/irritation, Category 2, H315 Skin sensitisation, category 1B, H317 Aspiration hazard, Category 1, H304 Hazardous to the aquatic environment — Acute Hazard, Category 1, H400 Hazardous to the aquatic environment — Chronic Hazard, Category 1, H410
Myrcene	(CAS-No.) 123-35-3	≤ 2	Flammable liquids, Category 3, H226 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Aspiration hazard, Category 1, H304 Hazardous to the aquatic environment — Acute Hazard, Category 1, H400 Hazardous to the aquatic environment — Chronic Hazard, Category 2, H411
Geranial	(CAS-No.) 141-27-5	≤ 2	Acute toxicity (dermal), Category 5, H313 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, category 1B, H317 Hazardous to the aquatic environment — Acute Hazard, Category 2, H401
Terpinolene	(CAS-No.) 586-62-9	≤ 0.5	Flammable liquids, Category 4, H227 Acute toxicity (oral), Category 5, H303 Skin corrosion/irritation, Category 3, H316 Skin sensitisation, category 1B, H317 Aspiration hazard, Category 1, H304 Hazardous to the aquatic environment — Acute Hazard, Category 1, H400 Hazardous to the aquatic environment — Chronic Hazard, Category 1, H410

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Nerol	(CAS-No.) 106-25-2	≤ 0.1	Acute toxicity (oral), Category 5, H303 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, category 1B, H317 Hazardous to the aquatic environment — Acute Hazard, Category 2, H401
Geraniol	(CAS-No.) 106-24-1	≤ 0.1	Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Hazardous to the aquatic environment — Acute Hazard, Category 3, H402 Acute toxicity (oral), Category 5, H303 Skin sensitisation, Category 1, H317

Comments : Analysis method : gas chromatography (GC/FID) area % according to normalization method (ISO 7609 and 11024)

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : Call a doctor immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Do not induce vomiting. Call a doctor immediately.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
Symptoms/effects after ingestion : Risk of lung oedema.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapour.

5.3. Special protective actions for fire-fighters

Protection during firefighting : 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

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

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".

6.2. Environmental precautions

Avoid release to the environment.

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6.3. Methods and materials for containment and cleaning up

For containment	: Collect spillage.
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.

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. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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 in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Keep contents under nitrogen.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment
Personal protective equipment symbol(s)	



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow. greenish.
Odour	: fresh. zesty.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability (solid, gas)	: Not applicable
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: 46 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available

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pH	: Not available
pH solution	: Not available
Viscosity, kinematic (calculated value) (40 °C)	: < 20 mm ² /s
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 0.85 – 0.858
Relative vapour density at 20 °C	: Not available
Solubility	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle specific surface area	: Not applicable

9.2. Data relevant with regard to physical hazard classes (supplemental)

UN Gap Test	: No additional information available
Koenen Test	: No additional information available
Limiting impact energy	: No additional information available
Limiting load	: No additional information available
Thermal stability	: No additional information available
Oxidising power (OP)	: No additional information available
Corrected burning rate (Ac)	: No additional information available
Desensitizing agent	: No additional information available
Exothermic decomposition energy	: No additional information available
Tci	: No additional information available
Fundamental burning velocity	: No additional information available
Mass burning rate	: No additional information available
Wetted zone pass	: No additional information available
SADT	: No additional information available
Decomposition energy	: No additional information available
Detonation properties	: No additional information available
Deflagration properties	: No additional information available
Effect of heating under confinement	: No additional information available
Explosive power	: No additional information available
Spontaneous ignition	: No additional information available
Pyrophoric properties over time	: No additional information available
Emitted gas	: No additional information available
Emitted gas ignition	: No
Gas evolution rate	: No additional information available
Corroded metals	: No additional information available
Corrosion rate	: No additional information available
Minimum ignition energy	: No additional information available
Specific conductivity	: No additional information available
Softening point	: No additional information available
Sublimation point	: No additional information available
Saturation concentration	: No additional information available
Miscibility	: No additional information available
VOC content	: No additional information available
Fat solubility	: No additional information available

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Gas group	: No additional information available
Refractive index	: 1.47 – 1.476
Bulk density	: No additional information available
Other properties	: No additional information available
Additional information	: No additional information available

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.

10.5. Incompatible materials

No additional information available

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 toxicological effects

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified

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LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

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	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.

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Viscosity, kinematic	< 20 mm ² /s
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Classification procedure (Hazardous to the aquatic environment, short-term (acute))	: Calculation method
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.
Classification procedure (Hazardous to the aquatic environment, long-term (chronic))	: Calculation method

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12.2. Persistence and degradability

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Persistence and degradability	No additional information available
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No additional information available
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12.4. Mobility in soil

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Mobility in soil	No additional information available
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12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

14.1. UN number

UN-No.(UN RTDG) : 1169
UN-No. (IMDG) : 1169
UN-No. (IATA) : 1169

14.2. UN Proper Shipping Name

Proper Shipping Name (UN RTDG) : EXTRACTS, AROMATIC, LIQUID (beta-Pinene)
Proper Shipping Name (IMDG) : EXTRACTS, AROMATIC, LIQUID (dipentene; limonene)
Proper Shipping Name (IATA) : EXTRACTS, AROMATIC, LIQUID (dipentene; limonene)

14.3. Transport hazard class(es)

UN RTDG

Transport hazard class(es) (UN RTDG) : 3
Danger labels (UN RTDG) : 3



IMDG

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3
Danger labels (IATA) : 3

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14.4. Packing group

Packing group (UN RTDG) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
Other information : Marine Pollutant : Dipentene, limonene

14.6. Special precautions for user

- UN RTDG

Special provisions (UN RTDG) : 223
Limited quantities (UN RTDG) : 5L
Excepted quantities (UN RTDG) : E1
Packing instruction (UN RTDG) : P001, IBC03, LP01
Portable tank and bulk container special instructions (UN RTDG) : T2
Portable tank and bulk container special provisions (UN RTDG) : TP1

- IMDG

Special provisions (IMDG) : 223, 955
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T2
Tank special provisions (IMDG) : TP1
EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG) : A
Properties and observations (IMDG) : Usually consist of alcoholic solutions. Miscibility with water depends upon the composition.

- IATA

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
Special provisions (IATA) : A3
ERG code (IATA) : 3L

14.7. Transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

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Full text of H-statements:	
H226	Flammable liquid and vapour
H227	Combustible liquid
H302	Harmful if swallowed

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H303	May be harmful if swallowed
H304	May be fatal if swallowed and enters airways
H313	May be harmful in contact with skin
H315	Causes skin irritation
H316	Causes mild skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful 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

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.