



Material Safety Data Sheet
According to EU Regulation 1907/2006 in the current version

Date 07.11.2015
Version 2.0

LIME ESSENTIAL OIL

1. Identification of the substance/preparation and trade name

Trade name: Lime essential oil
Utilization: aromatic raw material for cosmetic and professional use
Company identification: **Elemental SRL**, Piata Cazarmii no.15, 410188-Oradea, Bihor-Romania,
Tel/Fax: +40259-436.755, www.elemental.eu
Emergency: RO: Biroul pentru Regulamentul Sanitar Internațional și Informare Toxicologică - Telefon de urgență 021 318 3606

2. Hazards Identification

EC Dir.: Harmful, flammable and dangerous for the environment
Xn(Harmful), N(Dangerous for the environment), R10(Flammable), R38(Irritating to skin), R43(May cause sensitisation by skin contact), R50/53(Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment), R65(Harmful: may cause lung damage if swallowed), S24(Avoid contact with skin.), S37(Wear suitable gloves.), S61(Avoid release to the environment. Refer to special instructions / safety data sheets.), S62(If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label)

CLP/GHS: FL 3, AH 1, SCI 2, SS 1, EH A1, C1
SGH02, SGH07, SGH08, SGH09, H226(Flammable liquid and vapour), H304(May be fatal if swallowed and enters airways), H317(May cause an allergic skin reaction), H315(Causes skin irritation), H400(Very toxic to aquatic life), H410(Very toxic to aquatic life with long lasting effects), P262(Do not get in eyes, on skin, or on clothing), P280(Wear protective gloves/protective clothing/eye protection/face protection), P273(Avoid release to the environment), P301/330/331(IF SWALLOWED: Rinse mouth. Do NOT induce vomiting), P315(Get immediate medical advice/attention), P101(If medical advice is needed, have product container or label at hand)

Danger



3. Composition / Information on ingredients

Essential oil obtained by steam distillation of the crushed fruits of Lime (Rutaceae)

INCI-name: citrur aurantifolia oil

CAS-number: 8008-26-2 / 90063-52-8 EINECS-number: 290-010-3

Main components: limonene, gamma-terpinene, terpinolene, alpha-terpineol

Components naturally present:

Limonene N°CAS : 138-86-3 N°CE : 205-341-0 40-55%

Xi, N R10-38-43-50/53 SGH07, SGH08, SGH09, SGH02 H304, 315, 317, 410, 226 AH 1, SCI 2, SS 1B, EH A1, C1, FL 3

gamma-Terpinene N°CAS : 99-85-4 N°CE : 202-794-6 14%

Xn R(10)-65 SGH02, SGH08 H226-303-316-304 FL 3, ATO 5(3850), SCI 3, AH 1

Terpinolene N°CAS : 586-62-9 N°CE : 209-578-0 11%

Xn, N R(10)-51/53-65 SGH08, SGH09 H304, 303, 316, 411 ATO 5(3850); AH 1, SCI 3; EH A2, C2

alpha-Terpineol N°CAS : 98-55-5 N°CE : 202-680-6 8%

Xi R36/38 SGH07 H227-303-315-319-401 ATO5(4300), SCI2, EDI2A, FL 4, EH A2

alpha-Pinene N°CAS : 80-56-8 N°CE : 201-291-9 2%

Xn R(10)-38-43-65 SGH02, SGH07, SGH08 H226-303-304-315-317 FL 3, ATO 5(3700), SCI 2, SS 1B, AH 1



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beta-Pinene N°CAS : 127-91-3 N°CE : 204-872-5 3%
Xn R(10)-38-43-65 SGH02, SGH07, SGH08 H226-304-315-317 FL 3, SCI 2, SS 1B, AH 1
Cineol 1.8 (Eucalyptol) N°CAS : 470-82-6 N°CE : 207-431-5 4%
R10 SGH02 H226-303-316 FL 3, ATO 5(2480), SCI 3
p-Cymene N°CAS : 99-87-6 N°CE : 202-796-7 3%
Xn,N R(10)-51/53-65 SGH08, SGH09 H226, 304, 303, 316, 411 ATO 5(4750); AH 1, SCI 3; EH A2,C2; FL 3
Bisabolene N°CAS : 17627-44-0 N°CE : 241-610-9 2%
Xn R38-43-65 SGH08, SGH07 H315, H304, H317 SCI 2, SS 1, AH 1

4. First Aid

After excessive inhalation:	Move exposed person to fresh air. Keep the person warm and at rest. Call a doctor in case of persistence or worsening of adverse health effects. If unconscious, place the person in recovery position and call a physician immediately. Ensure good air circulation.
First aid after Skin contact:	Remove contaminated clothing. Rinse affected area with plenty of water. Contact a physician if symptoms persist.
First aid after Eye contact:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Get medical attention if irritation occurs.
First aid after Ingestion:	Rinse mouth with water. Move exposed person to fresh air. Keep the person warm and at rest. Do not induce vomiting unless directed by medical personnel. If vomiting occurs, keep head down to prevent the passage of vomit into the lungs. Call a doctor in case of persistence or worsening of adverse health effects. If unconscious, place the person in recovery position and call a physician immediately. Ensure good air circulation.

5. Fire-fighting Measures

Suitable extinguishing media:	Foam, dry chemical powder, carbon dioxide, sand or earth
Unsuitable extinguishing	Direct waterjet
Special protective equipment	Avoid vapour inhalation. Keep away from sources of ignition. Do not smoke. Wear positive pressure self-contained breathing apparatus & protective clothing.
Fire and explosion protection	Avoid open flames. Toxic vapours must be avoided during fire. Respiratory protection should be released during fire.
Other information	Closed containers may build up pressure when exposed to heat and should be cooled with water spray.

6. Accidental release measures:

Personal precautions:	Provide adequate ventilation, avoid contact with skin and eye contact. Use individual protective equipment (safety glasses, waterproof-boots, suitable protective clothing). Don't smoke. Prevent any contact with hot surfaces (see rubric 8).
Environmental precautions	Shut off source. Prevent product from entering sewerage, water courses or low lying areas. Take measures to reduce or prevent effects on ground water.
Land spill:	Gather product mechanically if possible. Bind remainings of the product with sand or other appropriate absorbent and remove. Dispose of product and contaminated absorbents in suitable containers, as directed in section 13.



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- Water spill:** Confine the spill immediately with booms. Warn other ships. Notify port and other relevant authorities. Remove from the surface by skimming or with suitable absorbents. In running waters, apply appropriate dispersants in accordance with local regulation.
- Methods for cleaning up:** Contain spilled material, cover with an inert, non-combustible, inorganic, absorbent material and destroy according to the regulation in force.

7. Handling and Storage

- Precautions for safe handling:** To avoid splashing into the eyes and mucous membranes and following the arrangement of the workplace and manipulations, wearing glasses and special clothing (gloves...) may be indicated. It is prohibited smoking in areas where they are handled. Do not heat with a naked flame or expose their vapors to a flame or other sources of ignition (eg electrical equipment). Do not abundantly breathe vapors. Large spillages should be contained with sand or inert powder.
- Conditions for safe storage:** Store in cool, dry and ventilated area, away from heat sources, sparks and open flames, protected from light in tightly closed original container

8. Exposure Controls and Personal Protection

- Respiratory protection:** Avoid to breathe directly on the product. Ensure a good ventilation of the workroom.
- Hand protection:** Use protective gloves
- Eye protection:** Avoid contact with eyes. Use eye protectors designed to protect against liquid splashes. Before handling, wear safety goggles in accordance with standard EN166.
- Physical protection:** Use individual protective equipment



9. Physical and Chemical Properties

- Appearance:** liquid at room temperature
- Colour:** colorless to light yellow greenish
- Odour:** typical
- Flash point:** +52°C
- Specific gravity at 20°C:** 0.856 to 0.865
- Refractive index at 20°C:** 1.474 to 1.478
- Optical rotation at 20°C:** +34° to +45°
- Solubility(ies):** insoluble in water; soluble in ethanol., liposoluble

10. Stability and Reactivity

- Stability:** No significant modifications, respecting the storage conditions (see rubric 7).
- Reactivity:** This product is stable to shock, vibration and pressure under normal conditions of use. In the presence of light and heat, oxidation can occur.
- Conditions to avoid:** Do not heat to high temperature. Do not expose sealed containers in the sun. Keep away from sources of ignition.
- Substances to avoid:** Avoid contacts with strong acids, alkali or oxidizing agents.



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11. Toxicological Information

Effect by ingestion: LD50 for the rat ≥ 5000 mg/kg
Effect by dermal contact: LD50 for the rabbit ≥ 5000 mg/kg
CMR naturally present: toluene $< 0.02\%$
IFRA restrictions: Lime essential oil is not explicitly regulated by IFRA. It contains on average 0.5% citral, 0-0.2% geraniol, 0-0.005% citronellol, 0.05% perilla aldehyde classified "R"; 40-55% limonene, 0.2% linalool classified "S" and $< 0.02\%$ Toluene classified "P".

12. Ecological Information

Prevent contamination of soil, ground and surface water. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Biodegradability not determined.

13. Disposal Considerations

Recommendation: In accordance with local environmental laws. Avoid disposing into drainage systems and into the environment.

14. Transport Information

UN no: 1169
Road (ADR/RID): UN 1169 Extracts, aromatic, liquid, 3, III
Air (IATA/ICAO): UN 1169 Extracts, aromatic, liquid, 3, III
Sea (IMDG): UN 1169 Extracts, aromatic, liquid, 3, III

15. Additional Regulatory Information

Regulations specific for the substance or mixture: not available data
Chemical safety assessment: not available data

16. Other Information

DECLARATION OF ALLERGENS

7th Amendment to Directive 76/768/EC, annex III, part I (2003/15/EC)

INCI Name	CAS No	Contents in %
2-(TERT-BUTYL PROPIONALDE) (Lilial)	80-54-6	0
3-METHYL-4-(2,6,6 TRIMETHYL-2-CYCLOHEXENE-1-YL)-3-BUTEN-2-ONE	127-51-5	0
AMYL CINNAMAL	122-40-7	0
AMYL CINNAMYL ALCOHOL	101-85-9	0
ANISYL ALCOHOL (Anise alcohol)	105-13-5	0
BENZYL ALCOHOL	100-51-6	0
BENZYL BENZOATE	120-51-4	0
BENZYL CINNAMATE	103-41-3	0
BENZYL SALICYLATE	118-58-1	0



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CINNAMAL (Cinnamic Aldehyde)	104-55-2	0
CINNAMYL ALCOHOL	104-51-6	0
CITRAL	5392-40-5	<=0,5
CITRONELLOL	106-22-9	0
COUMARIN	91-64-5	0
EUGENOL	97-53-0	0
FARNESOL	4602-84-0	0
GERANIOL	106-24-1	0
HEXYL CINNAMIC ALDEHYDE (Hexyl Cinnamal)	101-86-0	0
HYDROXYCITRONELLAL	107-75-5	0
HYDROXYMETHYL PENTYL CYCLOHEXENE CARBOXALDEHYDE (Lyrall)	31906-04-4	0
ISO EUGENOL	97-54-1	0
LIMONENE	138-86-3	<=55,0
LINALOOL	78-70-6	<=0,2
METHYL HEPTINE CARBONATE	111-12-6	0
OAK MOSS EXTRACT (Evernia Prunastri)	90028-68-5	0
TREE MOSS EXTRACT (Evernia Furfuracea)	90028-67-4	0

Disclaimer

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.