



**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**PURE LIME ESSENTIAL OIL**

**1. Identification of the substance/mixture and company**

Trade name:	Pure Lime essential oil Natural product obtained by steam distillation of the fruit peel.
I.N.C.I.	Citrus Aurantifolia oil
CAS No. :	90063-52-8
EINECS No. :	290-010-3
REACH registration No. :	01-2120138646-51
Utilization:	Raw material for cosmetic or professional use
Supplier company identification:	<b>Elemental SRL</b> , Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania Tel/Fax: +40259-436.755, www.elemental.eu
Emergency:	RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate Publică București. International emergency number: +49 180 2273-112

**2. Hazards Identification**

2.1 Classification of the substance or mixture

Classification according to EC Reg. 1272/2008 (Norm. GHS-CLP)  
Flammable liquids, Category 3  
Skin corrosion/irritation, Category 2  
Skin sensitization, Category 1  
Aspiration hazard, Category 1  
Hazardous to the aquatic environment - Chronic Hazard, Category 2

The full text of the risk phrases and precautionary phrases cited below is shown in point 16 of this sheet.

Hazards: H226 – H304 – H315 – H317 – H411  
Precautions: P210 – P241 – P261 – P273 – P280 – P301+P310 – P303+P361+P353 – P331 – P405 – P501  
Special instructions: none

Adverse physicochemical, human health and environmental effects

- Flammable liquid and vapor.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May be fatal if swallowed and enters airways.
- Toxic to aquatic life with long lasting effects.

2.2 Label elements

Hazard pictograms:



Hazard statement:

H226 – Flammable liquid and vapor.  
H304 – May be fatal if swallowed and enters airways.  
H315 – Causes skin irritation.



## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

H317 – May cause an allergic skin reaction.

H411 – Toxic to aquatic life with long lasting effects.

Precautionary statement:

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 – Use explosion-proof electrical/ventilating/lighting equipment.

P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.

P273 – Avoid release to the environment.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P331 – Do NOT induce vomiting.

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.

Special instructions: none

2.3 Other hazards

No additional information available.

### 3. Declaration of ingredients

The product contains the following ingredients:

Substance	C.A.S.	EINECS	Hazard symbols	Percent %
Pure lime distilled essential oil	90063-52-8	290-010-3	H226, H315, H317, H304, H411	100%

### 4. First aid measures

4.1 Description of first aid measures

In case of contact with skin: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

In case of contact with eyes: Rinse eyes with water as a precaution.

In case of inhalation: Remove person to fresh air and keep comfortable for breathing.

In case of ingestion: Do not induce vomiting. Call a doctor immediately.

4.2 Main symptoms and effects, both 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 to consult a physician immediately or any special treatments

Treat symptomatically.

### 5. Fire fighting measures

5.1 Means of extinction



## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

Suitable extinguishing media: Dry powder, foam, carbon dioxide, water spray.

Unsuitable extinguishing media: Do not use water jet.

#### 5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapor. During the fire toxic fumes could be released, use protective masks.

#### 5.3 Recommendations for fire-fighters

Do not attempt to take action without suitable protective equipment: self-contained breathing apparatus, complete protective clothing.

### 6. Accidental release measures

#### 6.1 Personal precautions, protective devices and emergency procedures

For non-emergency personnel

- Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. For emergency responders

- Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8.

#### 6.2 Environmental precautions

Avoid release to the environment.

#### 6.3 Methods and materials for containment and remediation

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.

#### 6.4 Reference to other sections

For further information refer to section 13.

### 7. Handling and storage

#### 7.1 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 vapors 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/vapors/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.



## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

Storage conditions: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Keep contents under nitrogen.

#### 7.3 Specific end uses

No additional information available.

### 8. Exposure controls / personal protection

#### 8.1 Control parameters

No additional information available.

#### 8.2 Exposure controls



Hand protection: Wear protective gloves.

Skin protection: Wear suitable protective clothing.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Eye protection: Wear safety glasses.

Environmental exposure controls: Avoid release to the environment.

### 9. Physical and chemical properties

#### 9.1 Information on physical and chemical properties

Physical state: Liquid

Appearance: liquid at room temperature

Color: colorless, yellow, greenish

Odor: zesty, fresh.

Odor threshold: No data available

pH: No data available

Relative evaporation rate (butylacetate=1): No data available

Melting point: Not applicable

Freezing point: No data available

Boiling point: No data available

Flash point: 52 °C

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Flammability (solid, gas): Not applicable

Vapor pressure: No data available

Relative vapor density at 20 °C: No data available

Relative density: 0.856 - 0.865

Solubility: No data available

Log Pow: No data available

Viscosity, kinematic: < 20 mm<sup>2</sup>/s

Viscosity, dynamic: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Explosive limits: No data available



## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

#### 9.2 Other information

Refractive index: 1.474 - 1.478

#### 10. Stability and reactivity

##### 10.1 Responsiveness

Flammable liquid and vapor.

##### 10.2 Chemical stability

Stable under normal conditions.

##### 10.3 Possibility of dangerous 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.

#### 11. Toxicological information

##### 11.1 Information on toxicological effects

Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

##### **Pure Lime essential oil**

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 sensitization: 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.

Viscosity, kinematic: < 20 mm<sup>2</sup>/s

#### 12. Ecological information

##### 12.1 Toxicity

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

Acute aquatic toxicity: Not classified

Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.



## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

12.2 Persistence and degradability  
No additional information available.

12.3 Bioaccumulation potential  
No additional information available.

12.4 Ground mobility  
No additional information available.

12.5 Results of PBT and vPvB assessment  
No additional information available.

12.6 Other adverse effects  
No additional information available.

## 13. Disposal considerations

### 13.1 Waste treatment methods

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

## 14. Transport information

ADR / RID		IMDG		IATA	
-----------	---	------	---	------	---

### 14.1 UN number

ADR: 1169

IMDG: 1169

IATA: 1169

Customs Code: 3301131000

### 14.2 UN shipping name

ADR: EXTRACTS, AROMATIC, LIQUID

IMDG: EXTRACTS, AROMATIC, LIQUID

IATA: EXTRACTS, AROMATIC, LIQUID

### 14.3 Class of danger for transport

ADR: 3

IMDG: 3

IATA: 3

### 14.4 Packing group

ADR: III

IMDG: III

IATA: III

### 14.5 Environmental hazards



## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

ADR:

- Dangerous for the environment: Yes

IMDG:

- Dangerous for the environment: Yes

- Marine pollutant: Yes

IATA:

- Dangerous for the environment: Yes

#### 14.6 Special precautions for users

##### Overland transport

Classification code (ADR): F1

Special provisions (ADR): 601

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): T2

Portable tank and bulk container special provisions (ADR): TP1

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: 3YE

##### Transport by sea

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

EmS-No. (Spillage): S-D

Stowage category (IMDG): A

Properties and observations (IMDG): Usually consist of alcoholic solutions. Miscibility with water depends upon the composition.

##### 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



## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

CAO packing instructions (IATA): 366

CAO max net quantity (IATA): 220L

Special provisions (IATA): A3

ERG code (IATA): 3L

#### Inland waterway transport

Classification code (ADN): F1

Special provisions (ADN): 601

Limited quantities (ADN): 5 L

Excepted quantities (ADN): E1

Equipment required (ADN): PP, EX, A

Ventilation (ADN): VE01

Number of blue cones/lights (ADN): 0

#### Rail transport

Classification code (RID): F1

Special provisions (RID): 601

Excepted quantities (RID): E1

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

Mixed packing provisions (RID): MP19

Portable tank and bulk container instructions (RID): T2

Portable tank and bulk container special provisions (RID): TP1

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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not applicable

## 15. Regulatory information

15.1 Regulations and legislation on health, safety and environment specific to the substance or mixture

#### EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	
Reference code	Applicable on
3.	Pure Lime essential oil
3(a)	Pure Lime essential oil
3(b)	Pure Lime essential oil
3(c)	Pure Lime essential oil
40.	Pure Lime essential oil

Pure Lime essential oil is not on the REACH Candidate List.

Pure Lime essential oil is not on the REACH Annex XIV List.

Pure Lime essential oil not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Pure Lime essential oil is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.2 Chemical safety assessment.

No chemical safety assessment has been carried out.





## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

#### 16. Additional information

##### 16.1 Abbreviations:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

LTE: Long-term exposure.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STE: Short-term exposure.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

##### 16.2 Full text of the H phrases mentioned in point 3:

H226 – Flammable liquid and vapor.

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.

#### DECLARATION OF ALLERGENS

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

I.N.C.I.	C.A.S.	%
Alpha-Hexyl cinnamic aldehyde (HCA)	101-86-0	-
Amyl cinnamic alcohol	101-85-9	-
Amyl cinnamic aldehyde (ACA)	122-40-7	-
Anisyl alcohol	105-13-5	-
Benzyl salicylate	118-58-1	-
Benzyl benzoate	120-51-4	-
Benzyl cinnamate	103-41-3	-
Benzyl alcohol	100-51-6	-
Cinnamic alcohol	104-54-1	-
Cinnamic aldehyde	104-55-2	-



## Material safety data sheet

According to EU Regulation 1907/2006 in the current version

### PURE LIME ESSENTIAL OIL

Citral	5392-40-5	≤ 0.5000
Citronellol	106-22-9	≤ 0.0100
Coumarin (2p-1-benzopyran-2-one)	91-64-5	-
d-Limonene	5989-27-5	≤ 52.0000
Eugenol	97-53-0	-
Farnesol	4602-84-0	-
Geraniol	106-24-1	≤ 0.2000
Lyril (Hydroxymethylpentyl cyclohexene carbaldoxaldehyde)	31906-04-4	-
Hydroxycitronellal	107-75-5	-
Isoeugenol	97-54-1	-
alpha-Iso-methyl ionone	127-51-5	-
Linalool	78-70-6	≤ 0.2000
Methyl heptine carbonate	12/06/11	-
Oakmoss absolute	9000-50-4	-
p-tert-Butyl-alpha- methylhydrocinnamic aldehyde	80-54-6	-
Tree moss	68648-41-9	-

#### 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.