

Material Safety Data Sheet

According to EU Regulation 1907/2006 in the current version

CLOVE LEAF ESSENTIAL OIL

1. Identification of the substance/mixture and company

Trade name: Pure Clove Leaf essential oil
Natural product obtained by steam distillation of the leaves of *Eugenia caryophyllata*.
I.N.C.I. *Eugenia Caryophyllus* leaf oil
CAS No. : 84961-50-2
EINECS No. : 904-912-8 (284-638-7)
REACH pre-registration No. : 01-2119970580-36
Utilization: Raw material for cosmetic or professional use
Supplier company identification: Elemental SRL, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania
Tel/Fax: +40259-436.755, www.ellemental.com
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 Regulation (EC) No 1272/2008 (CLP)

Acute toxicity (oral), Category 4

Acute toxicity (dermal), Category 4

Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 2

Skin sensitization, category 1B

Aspiration hazard, Category 1

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

Hazards: H302 – H312 – H315 – H319 – H317 – H304

Precautions: P280 – P301+P310+P331 – P312 – P321 – P333+P313 – P337+P313 – P362+P364

Special instructions: none

Adverse physicochemical, human health and environmental effects

- Harmful in contact with skin.
- Harmful if swallowed.
- May cause an allergic skin reaction.
- Causes serious eye irritation.
- May be fatal if swallowed and enters airways.

2.2 Label elements

Hazard pictograms:



Hazard statement:

H302+H312 – Harmful if swallowed or in contact with skin.

H304 – May be fatal if swallowed and enters airways.

H315 – Causes skin irritation.

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H317 – May cause an allergic skin reaction.

H319 – Causes serious eye irritation.

Precautionary statement:

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

P301+P310+P331 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

P312 – Call a POISON CENTRE or doctor if you feel unwell.

P321 – Specific treatment (see supplemental first aid instruction on this label).

P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 – If eye irritation persists: Get medical advice/attention.

P362+P364 – Take off contaminated clothing and wash it before reuse.

Special instructions: none

2.3 Other hazards

No additional information available.

3. Declaration of ingredients

3.1. Substances

The product contains the following components to declare:

Substance	C.A.S.	EINECS	Hazard symbols	Percent %
Clove leaf essential oil	84961-50-2	904-912-8 (284-638-7)	H302+H312, H304, H315, H317, H319	100%

3.2. Mixtures

Not Applicable

4. First aid measures

4.1 Description of first aid measures

General Information: In case of accident or unwellness, seek medical advice immediately, show directions for use or safety data sheet if possible.

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

4.2 Main symptoms and effects, both acute and delayed

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Generally, if in doubt or if symptoms persist, consult a doctor. Never give anything by mouth to an unconscious person. It is recommended that those who provide first aid have a personal protective equipment. No action shall be taken involving any personal risk or without suitable training.

4.3 Indication to consult a physician immediately or any special treatments

In case of illness contact your physician immediately. Treat symptomatically. Contact a specialist for treatment of poisoning if large amounts are ingested or inhaled.

5. Fire fighting measures

5.1 Means of extinction

Suitable extinguishing media: Foam, Co2, Dry Chemical Powder.

Unsuitable extinguishing media: High power water jet.

5.2 Special hazards arising from the substance or mixture

During the fire toxic fumes could be released, use protective masks. Overpressure can be created in containers exposed to fire with danger of explosion, cool the containers before handling them

5.3 Recommendations for fire-fighters

Always wear full fire protection equipment: protective helmet with visor, fireproof clothing, intervention gloves, breathing apparatus.

6. Accidental release measures

6.1 Personal precautions, protective devices and emergency procedures

In case of loss or spillage of the product, remove any flames or other sources of heat from the area where the leak occurred. Use protection if necessary for airways; protective clothing must be worn (eg. safety glasses or masks). Do not handle damaged containers or spilled product without wearing the appropriate protective equipment.

6.2 Environmental precautions

Discharge into the environment must be avoided. Prevent the product from entering drains, superficial drains, groundwater and confined areas. In case of such contamination inform the competent authorities.

6.3 Methods and materials for containment and remediation

Absorb spilled product with inert absorbent material: sand, vermiculite, diatomaceous earth. Collect most of the resulting material and deposit it in containers for disposal. Ensure adequate ventilation of the site.

6.4 Reference to other sections

Refer to section 7, 8 and 13

7. Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good hygiene and safety practice. Keep containers sealed when not in use. Prevent spills & leaks to avoid slip hazard. Always wear personal protective clothing (refer to section 8). Do not eat, drink, or smoke whilst handling this product. Provide suitable mechanical equipment for the safe handling of drums & heavy packages.

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7.2 Conditions for safe storage, including any incompatibilities

Keep the product container tightly closed, in a dry, ventilated area. Keep away from potential sources of ignition and protected from heat and light. Maintain limited contact with oxygen. Do not smoke. Store in original container or other container approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain residue product.

7.3 Specific end uses

No other than mentioned in section 1. Comply with regulations and specifications of the product

8. Exposure controls / personal protection

8.1 Control parameters

Handle in accordance with good industrial hygiene and safety practice.

8.2 Exposure controls

Hand protection: Protect hands with category I work gloves (ref. Directive 89/686 / EEC and standard EN 374) such as latex, PVC or equivalent.

Skin protection: Wear work clothes with long sleeves and safety footwear for professional use of category I (ref. Directive 89/686 / EEC and standard EN 344). Wash with soap and water after removing protective clothing.

Respiratory protection: Use protective masks. The use of respiratory protection is necessary in the absence of technical measures to limit worker exposure.

Eye protection: it is recommended to wear airtight protective goggles (ref. Standard EN 166).

8.3 Environmental exposure controls

Environmental protection legislation for every country must be observed.

9. Physical and chemical properties

9.1 Information on physical and chemical properties

Physical state: liquid

Appearance: liquid at room temperature

Color: yellow to brown

Odor: phenolic, spicy, pungent

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: >100 °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

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Solubility: No data available
Log Pow: No data available
Viscosity, kinematic: < 20 mm²/s
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidizing properties: No data available
Explosive limits: No data available

9.2 Other information

None

10. Stability and reactivity

10.1 Reactivity

The product is stable under storage at normal ambient temperatures. In the presence of light and heat, oxidation can occur.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature. No significant changes in the composition in time respecting the storage conditions

10.3 Possibility of dangerous reactions

According to our knowledge none in normal use. No hazardous reactions known if stored and handled as recommended.

10.4 Conditions to avoid

Do not heat to high temperature. Do not expose sealed containers in the sun. Keep away from sources of ignition.

10.5 Incompatible materials

Concentrated acids, alkalis and oxidising agents.

10.6 Hazardous decomposition products

This product does not decompose under normal conditions. Under fire conditions the product will produce a mixture of irritating fumes and smoke

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral): Harmful if swallowed.

Acute toxicity (dermal): Harmful in contact with skin.

Acute toxicity (inhalation): Not classified

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LD50 oral rat ≈ 1370 mg/kg

LD50 dermal rabbit ≈ 1200 mg/kg

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Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
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 mm²/s

12. Ecological information

12.1 Toxicity

Do not allow the product, even if diluted or in small quantities, to penetrate the ground aquifers or drain pipes.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulation potential

No data available

12.4 Ground mobility

No data available

12.5 Results of PBT and vPvB assessment

This product does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

No information available. Avoid release to the environment. Do not allow to enter into surface water or drains.

13. Disposal considerations

13.1 Waste treatment methods

Always recover spilled product. Discard waste material with authorized waste management services. Act in accordance with local and national waste regulations.

14. Transport information

14.1 UN number

ADR: Not regulated

IMDG: Not regulated

IATA: Not regulated

14.2 UN shipping name

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ADR: Not regulated
IMDG: Not regulated
IATA: Not regulated

14.3 Class of danger for transport

ADR: Not regulated
IMDG: Not regulated
IATA: Not regulated

14.4 Packing group

ADR: Not regulated
IMDG: Not regulated
IATA: Not regulated

14.5 Environmental hazards

Not regulated

14.6 Special precautions for users

Remarks: Not classified as dangerous in the meaning of transport regulations.

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

The regulatory information given above only indicates the principal regulations specifically applicable to the product.

15.2 Chemical safety assessment.

According to our knowledge, no assessment has been conducted on the product.

16. Additional information

16.1 Abbreviations:

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Test-ing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration as-sociated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; INCI: International Nomenclature of Cosmetic Ingredients; ISHL - Industrial Safety and Health

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Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; PNEC: Predicted No Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; STE: Short-term exposure; STEL: Short Term Exposure limit; STOT: Specific Target Organ Toxicity; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

16.2 Full text of the H phrases mentioned in section 3:

H302 - Harmful if swallowed.

H304 - May be fatal if swallowed and enters airways.

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

DECLARATION OF ALLERGENS

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

I.N.C.I.	C.A.S.	Max %
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	0.1000
Benzyl cinnamate	103-41-3	-
Benzyl alcohol	100-51-6	0.0100
Cinnamic alcohol	104-54-1	-
Cinnamic aldehyde	104-55-2	-
Citral	5392-40-5	-
Citronellol	106-22-9	-

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Coumarin (2p-1-benzopyran-2-one)	91-64-5	-
d-Limonene	5989-27-5	0.0100
Eugenol	97-53-0	92.0000
Farnesol	4602-84-0	0.0100
Geraniol	106-24-1	-
Lylal (Hydroxymethylpentyl cyclohexene carbaldoxaldehyde)	31906-04-4	-
Hydroxycitronellal	107-75-5	-
Isoeugenol	97-54-1	0.5000
alpha-Iso-methyl ionone	127-51-5	-
Linalool	78-70-6	0.1000
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.