



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

Date 12.10.2015
Version 3.0

CLOVE LEAVES ESSENTIAL OIL

1. Identification of the substance/preparation and trade name

Trade name: Clove essential oil
100% pure and natural essential oil obtained by steam distillation
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: numar national pentru cazuri de urgenta: 021 3183606 Institutul de Sanatate Publica
Bucuresti. International emergency number: +49 180 2273-112

2. Hazards Identification

EC Dir. : Harmful

Xn(Harmful),R36(Irritating to eyes), R43(May cause sensitisation by skin contact), R65(Harmful: may cause lung damage if swallowed), S24(Avoid contact with skin.), S37(Wear suitable gloves.), S62(If swallowed, do not induce vomiting; seek medical advice immediately and show the container or label.)

CLP/GHS : ATO 5(2650); ATD 5 (4900), AH 1, SCI 3, EDI 2A, SS1, EH A2

SGH07, SGH08, H303(May be harmful if swallowed), H304(May be fatal if swallowed and enters airways), H317(May cause an allergic skin reaction), H319(Causes serious eye irritation), H313(May be harmful in contact with skin), H316(Causes mild skin irritation), H401(Toxic to aquatic life), P101(If medical advice is needed, have product container or label at hand), P262(Do not get in eyes, on skin, or on clothing), P280(Wear protective gloves/protective clothing/eye protection/face protection), P301/330/331(IF SWALLOWED: Rinse mouth. Do NOT induce vomiting), P315(Get immediate medical advice/attention).

Danger



3. Composition / Information on ingredients

INCI-name: EUGENIA CARYOPHYLLUS LEAF OIL
CAS-number: 8000-34-8 / 84961-50-2 EINECS-no: 284-638-7
Substance: CNS, Complex natural substance (100% pure and natural), essential oil
Main constituents: eugenol, beta-caryophyllene, alpha-humulene
Components naturally present:
Eugenol N°CAS : 97-53-0 N°CE : 202-589-1 <= 92.0%
Xi R36-43 SGH07 H303, 316, 319, 317, 401 ATO 5(2300); SCI 3; EDI 2A; SS 1B; EH A2
beta-Caryophyllene N°CAS : 87-44-5 N°CE : 201-746-1 <= 17.0%
Xn R65 SGH08 H304, 316 AH 1, SCI 3
Methyl eugenol N°CAS : 93-15-2 N°CE : 202-223-0 <= 0.1%
Xn,N R22-40-68-51/53 SGH07, SGH08 H 302, 341, 351, 401 ATO 4(810), CAR 2, MUT 2, EH A2
Eugenyl acetate N°CAS : 93-28-7 N°CE : 202-235-6 <= 1.0%
Xn R22 SGH07 H302-316 ATO 4(1670), SCI 3

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



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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 avoid 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.

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 prohibit 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



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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 breath 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, sometimes slightly viscous
Colour: pale yellow to brownish
Odour: typical
Flash point: +100°C
Specific gravity at 20°C: 1.027 - 1.046
Refractive index at 20°C: 1.528 - 1.535
Optical rotation at 20°C: -2° to +0°
Solubility(ies): insoluble in water; liposoluble; soluble 1/1 vol ethanol 80%

10. Stability and Reactivity

Stability: No significant modifications, respecting the storage conditions (see section 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.

11. Toxicological Information

Effect by absorption: LD org. 50: for the rat = 1370 mg/kg
Effect by dermal contact: LD derm. 50: for the rabbit = 1200 mg/kg
IFRA restrictions: Clove leaf essential oil is not regulated explicitly by IFRA.
Residual solvents: not applicable

12. Ecological Information

Toxicity: No data available
Persistence and degradability: No data available



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Bio accumulative potential: No data available
Mobility in soil: No data available
Prevent contamination of soil, ground and surface waters. Do not discharge product into the environment.

13. Disposal Considerations

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

14. Transport Information

UN no: no
Road (ADR/RID): not regulated
Air (IATA/ICAO): not regulated
Sea (IMDG): not regulated

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	Typical Contents in %
2-(TERT-BUTYL PROPIONALDE) (Lilial)	80-54-6	0
3-METHYL-4-(2,6,6 TRIMETHYL-2-CYCLOHEXINE-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	<=0,01
BENZYL BENZOATE	120-51-4	<=0,1
BENZYL CINNAMATE	103-41-3	0
BENZYL SALICYLATE	118-58-1	0
CINNAMAL (Cinnamic Aldehyde)	104-55-2	0
CINNAMYL ALCOHOL	104-51-6	0
CITRAL	5392-40-5	0
CITRONELLOL	106-22-9	0
COUMARIN	91-64-5	0
EUGENOL	97-53-0	<= 92,0
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



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ISO EUGENOL	97-54-1	<=0,5
LIMONENE	5989-27-5	<=0,01
LINALOOL	78-70-6	<=0,1
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.