

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE/PREPARATION & COMPANY.

PRODUCT NAME: **Clove Leaf Oil**

PRODUCT CODE: **30257**

SUPPLIER: Essential Oils Direct Po Box 161 Oldham OL2 6FA

Emergency Tel No: 0161 633 3952 Emergency Contact: Mr. David Freer.

2. COMPOSITION / INFORMATION ON INGREDIENTS.

DEFINITION/BOTANICAL ORIGIN: The volatile oil obtained by steam distillation of the leaves of *Eugenia caryophyllus*.

H-No: 3301.29

CAS No: 8000-34-8

Status: natural

CoE No: 188n

FEMA: 2328

Additives: none

FDA: 184.1257

IFRA: restricted

Application: Aromatherapy, skin care

RIFM: monograph

EC No: 284-638-7

EINECS-CAS No: 84691-50-2

INCI name: Eugenia caryophyllus (Clove) Leaf Oil

FCCIV:

3. HAZARDS IDENTIFICATION:

Xn Harmful

4. FIRST-AID MEASURES:

INHALATION: Remove from exposure site to fresh air. Keep at rest. Obtain medical attention.

EYE CONTACT: Rinse immediately with plenty of water for at least 15 minutes. Contact a doctor if symptoms persist.

SKIN CONTACT: Remove contaminated clothes. Wash thoroughly with soap & water, flush with plenty of water. If irritation persists, seek medical advice.

INGESTION: Rinse mouth out with water. Seek medical advice **immediately**.

OTHER: When assessing action take Risk & Safety Phrases into account (Section 15)

5. FIRE FIGHTING MEASURES.

EXTINGUISHING MEDIA RECOMMENDED: Use CO₂, Dry Powder or Foam type Extinguishers, spraying extinguishing media to base of flames. Do not use direct water jet on burning material.

SPECIAL MEASURES: Avoid vapour inhalation. Keep away from sources of ignition. Do not smoke. Wear positive pressure self-contained breathing apparatus & protective clothing.

EXTINGUISHING PROCEDURES: Closed containers may build up pressure when exposed to heat and should be cooled with water spray.

6. ACCIDENTAL RELEASE MEASURES.

PERSONAL PRECAUTIONS: Avoid inhalation & direct contact with skin & eyes. Use individual protective equipment (safety glasses, waterproof-boots, suitable protective clothing) in case of major spillages.

ENVIRONMENT PRECAUTIONS: Keep away from drains, soils, surface & ground waters.

CLEANING UP METHODS FOR SPILLAGES: Remove all potential ignition sources. Contain spilled material. Cover with an inert or non-combustible inorganic absorbent material, sweep up and remove to an approved disposal container. Observe state, federal & local disposal regulations.

Clove Leaf Oil

Revised 12/08. This document replaces any previously issued document.

7. HANDLING & STORAGE.

PRECAUTIONS IN HANDLING:	Apply good manufacturing practice & industrial hygiene practices, ensuring proper ventilation. Observe good personal hygiene, and do not eat, drink or smoke whilst handling.
STORAGE CONDITIONS:	Store in tightly closed original container, in a cool, dry & ventilated area away from heat sources & protected from light. Keep air contact to a minimum.
FIRE PROTECTION:	Keep away from ignition sources & naked flames. Take precautions to avoid static discharges in working area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION.

RESPIRATORY PROTECTION:	Avoid breathing product vapour. Apply local ventilation where possible.
VENTILATION:	Ensure good ventilation of working area.
HAND PROTECTION:	Avoid all skin contact. Use chemically resistant gloves if required.
EYE PROTECTION:	Use safety glasses.
WORK/HYGIENE PRACTICES:	Wash hands with soap & water after handling.

9. PHYSICAL & CHEMICAL PROPERTIES.

COLOUR:	Pale Yellow
APPEARANCE:	Mobile liquid
ODOUR:	Strong, spicy, typical clove
FLASH POINT °C:	>100
SPECIFIC GRAVITY @ 20°C:	1.041 -1.054
REFRACTIVE INDEX @ 20°C:	1.528 -1.537
OPTICAL ROTATION:	0° to -1.5°

10. STABILITY & REACTIVITY.

REACTIVITY:	It presents no significant reactivity hazards, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidising agents.
DECOMPOSITION:	Liable to cause smoke & acrid fumes during combustion: carbon monoxide, carbon dioxide & other non-identified organic compounds may be formed.

11. TOXICOLOGICAL INFORMATION.

Acute oral LD₅₀: 1.37g/Kg. Moderate irritant, strong mucous membrane irritant. See RIFM monograph (1978) *FCT 16*, 695.

12. ECOLOGICAL INFORMATION.

BIODEGRADABILITY:	Data not available
PRECAUTIONS:	Prevent surface contamination of soil, ground & surface water.

13. DISPOSAL CONSIDERATIONS.

Avoid disposing to drainage systems and into the environment. Seek expert advice.

14. TRANSPORT REGULATIONS.

Road (ADR/RID):	n/a
AIR (IATA):	n/a
SEA (IMDG):	n/a
CHIP:	See section 15

15. REGULATORY INFORMATION.

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

16. OTHER INFORMATION.

Cosmetics Directive 7th Amendment: Restrictions may apply. A source of Eugenol and Isoeugenol, listed as sensitisers. Check maximum usage levels for skin care products.

IFRA maximum usage level = 0.55% (Leave on applications)

PACKAGING:

Type	Suitability
Glass	Yes
Lacquer lined steel/tin	No
Aluminium	Yes
HPPE	No
F/HDPE	Yes
Galvanised steel	Yes
Other plastic	No

SHELF LIFE

When stored within advised conditions, re-test after 12 months, then at 3 monthly intervals up to a maximum shelf life of 36 months.

Q.C. REQUIREMENTS.

In-line with general product specification. Always satisfy suitability for specific application.

The data provided in this material safety data sheet is meant to represent typical data/analysis for this product and is correct to the best of our knowledge. The data was obtained from current and reliable sources, but is supplied without warranty, expressed or implied, regarding its' correctness or accuracy. It is the user's responsibility to determine safe conditions for the use of this product, and to assume liability for loss, injury, damage or expense arising from improper use of this product. The information provided does not constitute a contract to supply to any specification, or for any given application, and buyers should seek to verify their requirements and product use.

DECLARATION OF ALLERGENS

PRODUCT	Clove Leaf Oil 30257
SUPPLIED TO	Essential Oils Direct

MATERIAL	CAS NUMBER	TOTAL ALLERGEN INCLUSION LEVEL (%)
AMYL CINNAMAL	122-40-7	-

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BENZYL ALCOHOL	100-51-6	-
CINNAMYL ALCOHOL	104-54-1	-
CITRAL	5392-40-5	-
EUGENOL	97-53-0	92.00
HYDROXYCITRONELLAL	107-75-5	-
ISO EUGENOL	97-54-1	0.50
AMYL CINNAMYL ALCOHOL	101-85-9	-
BENZYL SALICYLATE	118-58-1	-
CINNAMAL	104-55-2	-
COUMARIN	91-64-5	-
GERANIOL	106-24-1	-
HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE	31906-04-4	-
ANISE ALCOHOL	105-13-5	-
BENZYL CINNAMATE	103-41-3	-
FARNESOL	4602-84-0	-
BUTYLPHENYL METHYLPROPIONAL	80-54-6	-
LINALOOL	78-70-6	-
BENZYL BENZOATE	120-51-4	-
CITRONELLOL	106-22-9	-
HEXYL CINNAMAL	101-86-0	-
LIMONENE	5989-27-5	-
METHYL 2-OCTYNOATE	111-12-6	-
ALPHA-ISOMETHYL IONONE	127-51-5	-
EVERNIA PRUNASTRI EXTRACT	90028-68-5	-
EVERNIA FURFURACEA EXTRACT	90028-67-4	-

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Jim Flawn
Technical Manager
10/09