



Robust Madagascar

Material Safety Data Sheet

01. IDENTIFICATION OF THE SUBSTANCE/PREPARATION & THE COMPANY/UNDERTAKING

1.1 Product Identifier	
Product Name	Clove Leaf Oil.
Biological Definition	Eugenia Caroyphyllus Leaf Oil is an essential oil steam-distilled from the leaves of the Clove, <i>Eugenia caryophyllus</i> , Myrtaceae.
INCI Name	Eugenia Caroyphyllus Leaf Oil.
Synonyms & Trade Names	CLO
1.2 Relative identified uses of the substance or mixture and uses advised against	
Industry Use.	
1.3 Details of the supplier of the safety data sheet	
Robust Madagascar	
1.4 Emergency Tel. No.	+261 380539632

02. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
The Full Text for all Hazard Statements displayed in Section 16.	
Classification (EC 1272/2008)	
Physical and Chemical:	Hazards Not classified.
Human health:	Skin Sensitisation cat. 1 - H317, Aspiration Toxicity cat 1 - H304, Serious eye damage/ eye irritation cat 2 – H319
Environment:	Toxic to aquatic life.
2.2 Label Elements	
Label in accordance with (EC) No 1272/2008	
GHS07	GHS08
Signal Word	Danger.
Contains	CARYOPHYLLENE, EUGENOL
Hazard Statements	
H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.	
Precautionary Statements	
P280 - Wear protective gloves/protective clothing/eye protection/face protection.	

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P331 - Do NOT induce vomiting.

Supplementary Precautionary Statements

No additional data available.

2.3 Other Hazards

PBT or vPvB according to Annex XIII	No additional data available.
Adverse physio-chemical properties	No additional data available.
Adverse effects on human health	May be harmful if swallowed.

03. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

84.0 – 88.0% EUGENOL CAS-No: 97-53-0 EC No: 202-589-1

Classification (EC 1272/2008) Aquatic Acute 2 (H401) Skin Sens. 1 (H317) Eye Irrit. 1 (H319), Skin Irrit. 3 (H316) Acute Tox. 5 (H303), Aquatic Acute 2 (H401) (EFFA), Skin Sens. 1 (H317) (EFFA) Eye Irrit. 1 (H319) (EFFA) Skin Irrit. 3 (316) (EFFA), Acute Tox. 5 (H303)(EFFA)

9.0 – 12.0% CARYOPHYLLENE CAS: 87-44-5 EC No: 201-746-1

Classification (EC 1272/2008) Skin Irrit. 3 (H316), Skin Irrit. 3 (316) (EFFA) Asp. Tox. 1 (H304)(EFFA)

04. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Move the exposed person to fresh air at once. Get medical attention if any discomfort continues. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
Ingestion	Rinse mouth with water. DO NOT induce vomiting. Get medical attention.
Skin Contact	Remove contaminated clothing. Wash skin with soap and plenty of water. Get medical attention if any discomfort continues.
Eye Contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if irritation continues.

4.2 Most important symptoms and effects, both acute and delayed

No additional data available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

05. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

EXTINGUISHING MEDIA
 Use as appropriate: CO2, Foam, dry chemical powder.

5.2 Special hazards arising from the product

Thermal decomposition can lead to release of irritating and toxic gases and vapours.
 Hazardous combustion products: Irritating or toxic substances may be emitted upon burning, combustion, or decomposition.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

06. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation, especially in confined areas. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2 Environmental Precautions

Do not discharge into drains, water courses or onto the ground. Collect spillage.

6.3 Methods and material for containment and cleaning up.

Absorb with inert, non-combustible, inorganic absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite). Sweep up and remove to an approved disposal container.

6.4 Reference to other sections

See section 12.

07. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.

7.3 Specific end use(s)

No additional data available.

08. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

No additional data available.

8.2 Exposure controls

Protective Equipment



Process Conditions	Provide eyewash station.
Engineering Measures	Ensure adequate ventilation, especially in confined areas.
Respiratory Equipment	Respiratory protection may be required, if ventilation is poor.
Hand Protection	Chemical resistant gloves (PVC)
Eye Protection	Avoid contact with the eyes. Wear approved safety goggles.
Other Protection	No additional data available.
Hygiene Measures	Good personal hygiene practices are always advisable, especially when working with chemicals / oils. Keep away from foodstuffs, beverages and feed.
Personal Protection	Avoid inhalation and contact with skin and eyes.
Skin Protection	Wear apron or protective clothing in case of splashes.
Environmental Exposure Controls	Avoid discharging into drainage water. Only eliminate by authorised companies.

09. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties	
Appearance	Clear pale yellow to dark yellow liquid.
Colour	Pale yellow to dark yellow.
Odour	Characteristic.
Relative Density	1.033 - 1.054 @ 20°C
Flash Point (°C)	100
Refractive Index	1.528 - 1.538 @ 20°C
Melting Point (°C)	No additional data available.
Boiling Point (°C)	No additional data available.
Vapour Pressure	0.002
Solubility in Water @20°C	No additional data available.
Auto-ignition temperature (°C)	No additional data available.
9.2 Other information	
No additional data available.	

10. STABILITY AND REACTIVITY

10.1 Reactivity	
Stable under normal temperature conditions and recommended use.	
10.2 Chemical stability	
Stable under normal temperature conditions and recommended use.	
10.3 Possible hazardous reactions	
None under normal use and conditions.	
10.4 Conditions to Avoid	
Avoid extremes of temperature and direct sunlight.	
10.5 Incompatible materials	
No additional data available.	
10.6 Hazardous Decomposition Products	
None under normal use conditions.	

11. TOXOLOGICAL INFORMATION

11.1 Information on toxicological effects	
Acute Toxicity	Product does not present an acute toxicity hazard based on known or supplied information. The following values are calculated based on chapter 3.1 of the GHS document: ATEmix (oral) 2,809.00 Oral LD50 Dermal LD50 EUGENOL 1930mg/kg (Rat)
Skin corrosion / irritation	No additional data available.
Serious eye damage / irritation	No additional data available.
Respiratory or skin sensitisation	No additional data available.
Germ Cell Mutagenicity	No additional data available.
Carcinogenicity	No additional data available.

Reproductive toxicity	No additional data available.
STOT-single exposure	No additional data available.
STOT-repeated exposure	No additional data available.
Aspiration hazard	No additional data available.
Photo-toxicity	No additional data available.
Other Information	No additional data available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
14 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.
12.2 Persistence & degradability
No additional data available.
12.3 Bioaccumulation Potential
No additional data available.
12.4 Mobility in soil
No additional data available.
12.5 Results of PBT and vPvB Assessment
Not applicable.
12.6 Other adverse effects
No additional data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Disposal should be in accordance with applicable regional, national and local laws and regulations. Improper disposal or reuse of the container may be dangerous and illegal.

14. TRANSPORT INFORMATION

14.1 UN number	
UN No. Road	Not regulated.
UN No. SEA	Not regulated.
UN No. AIR	Not regulated.
14.2 UN proper shipping name	
None.	
14.3 Transport hazard class(es)	
Not regulated.	
14.4 Packing group	
Not required.	
14.5 Environmental hazards	
None.	
14.6 Special precautions for user	
None.	
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code	
No additional data available.	

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical safety assessment

No additional information available.

16. OTHER INFORMATION

Hazard and/or Precautionary Statements in Full	H302 - Harmful if swallowed. H316 - Causes mild skin irritation. H401 - Toxic to aquatic life. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H303 - May be harmful if swallowed.
Other Information	None
Date	20/02/2024

DISCLAIMER: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.