



SAFETY DATA SHEET (SDS)

Prepared in accordance with the Globally Harmonized System (GHS) and Regulation (EC) No. 1907/2006 (REACH, as amended)

SECTION 1 – IDENTIFICATION

Product Name: Clove Leaf Oil

Botanical Name: *Syzygium aromaticum* (L.) Merr. & L.M.Perry

INCI Name: Syzygium Aromaticum (Clove) Leaf Oil

CAS Number: 84961-50-2

EC Number: 284-638-7

Product Type: Rectified Natural Essential Oil

Plant Part: Leaves

Extraction Method: Steam Distillation followed by Fractional Rectification

Origin: Indonesia

Grade: Premium Perfumery Grade

Recommended Use: Professional perfumery, cosmetic, fragrance and flavour raw material.

Supplier

Aromology Trading LLC

G05 Al Ghazal Building

Nadd Al Hamar

Dubai, United Arab Emirates

Website: www.aromology.com

Email: info@aromology.com

Telephone: +971 505197601

SECTION 2 – HAZARD IDENTIFICATION

GHS Classification

- Acute Toxicity (Oral) – Category 4
- Aspiration Hazard – Category 1
- Skin Irritation – Category 2
- Skin Sensitisation – Category 1
- Serious Eye Damage – Category 1
- Hazardous to the Aquatic Environment (Chronic) – Category 2

Signal Word



Danger

Hazard Statements

- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

- P261 Avoid breathing vapours.
- P264 Wash thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves, protective clothing and eye/face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or physician.
- P331 Do not induce vomiting.
- P302+P352 IF ON SKIN: Wash thoroughly with soap and water.
- P333+P313 If skin irritation or rash occurs: Get medical advice.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
- P310 Immediately seek medical attention.
- P391 Collect spillage.
- P501 Dispose of contents/container in accordance with local regulations.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Component	Information
Product	Clove Leaf Oil (Rectified)
Botanical Name	<i>Syzygium aromaticum</i> (L.) Merr. & L.M.Perry
INCI Name	Syzygium Aromaticum (Clove) Leaf Oil
CAS Number	84961-50-2
EC Number	284-638-7
Purity	100% Rectified Natural Essential Oil

Typical Naturally Occurring Constituents

- Eugenol (Major Constituent)
- β -Caryophyllene
- Eugenyl Acetate



- α -Humulene
- Caryophyllene Oxide
- Acetyl Eugenol
- Sesquiterpenes

Rectification Process: Fractional distillation removes undesirable high-boiling impurities while preserving the characteristic clove aroma and increasing consistency for perfumery applications.

SECTION 4 – FIRST AID MEASURES

Inhalation: Remove exposed person to fresh air. Obtain medical advice if symptoms persist.

Skin Contact: Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention if irritation or sensitisation develops.

Eye Contact: Immediately flush with water for at least 15 minutes. Obtain urgent medical attention.

Ingestion: Rinse mouth. Do not induce vomiting. Immediately contact a poison centre or physician.

SECTION 5 – FIRE FIGHTING MEASURES

Suitable Extinguishing Media

- Carbon dioxide
- Dry chemical powder
- Alcohol-resistant foam
- Water fog

Hazardous Combustion Products

Carbon monoxide, carbon dioxide and irritating organic vapours.

SECTION 6 – ACCIDENTAL RELEASE MEASURES



Wear appropriate personal protective equipment.

Prevent release into drains and waterways.

Absorb using inert material and place into suitable disposal containers.

SECTION 7 – HANDLING AND STORAGE

Use only in well-ventilated areas.

Avoid contact with skin and eyes.

Store tightly closed in the original container.

Protect from heat, direct sunlight, air and strong oxidising agents.

Recommended Storage Temperature: 5–20 °C

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

- Chemical safety goggles or face shield
- Nitrile gloves
- Protective clothing
- Local exhaust ventilation
- Organic vapour respirator where ventilation is insufficient

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Clear mobile liquid
Colour	Colourless to Pale Yellow
Odour	Clean spicy clove, warm, sweet, phenolic
Relative Density (20 °C)	1.040–1.065
Refractive Index (20 °C)	1.530–1.540
Flash Point	>95 °C
Solubility in Water	Insoluble
Solubility	Soluble in ethanol and perfumery solvents



SECTION 10 – STABILITY AND REACTIVITY

Stable under recommended storage conditions.

Avoid:

- Strong oxidising agents
- Excessive heat
- Open flames
- Direct sunlight
- Prolonged exposure to air

Hazardous decomposition products include carbon monoxide and carbon dioxide.

SECTION 11 – TOXICOLOGICAL INFORMATION

Harmful if swallowed.

May be fatal if swallowed and enters airways.

Causes skin irritation.

May cause allergic skin reactions.

Causes serious eye damage.

Contains naturally high concentrations of eugenol, which is recognised as a skin sensitiser.

SECTION 12 – ECOLOGICAL INFORMATION

Toxic to aquatic organisms with long lasting effects.

Prevent uncontrolled release into the environment.

SECTION 13 – DISPOSAL CONSIDERATIONS



Dispose of product and packaging through an authorised waste disposal contractor in accordance with applicable regulations.

SECTION 14 – TRANSPORT INFORMATION

Regulation	Status
UN Number	UN3082
Proper Shipping Name	Environmentally Hazardous Substance, Liquid, N.O.S. (Clove Leaf Oil, Rectified)
ADR/RID	Class 9
IMDG	Class 9
IATA	Class 9
Packing Group	III

SECTION 15 – REGULATORY INFORMATION

Prepared in accordance with:

- GHS Revision 9
 - OSHA Hazard Communication Standard (29 CFR 1910.1200)
 - Regulation (EC) No. 1907/2006 (REACH)
 - Regulation (EU) 2020/878
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SECTION 16 – OTHER INFORMATION

Clove Leaf Oil (Rectified) is produced by steam distillation of the leaves of *Syzygium aromaticum* followed by fractional rectification to improve colour, odour consistency and purity. The rectification process reduces undesirable heavy components while maintaining the oil's naturally high eugenol content, resulting in a cleaner, more refined spicy clove profile preferred for fine fragrance, flavour, oral care and cosmetic applications.

Document Version: 1.0

Issue Date: 10 July 2026

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