



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

Parameter	Details
Product Name	Patchouli Oil CO ₂
Alternative Names	Patchouli CO ₂ Extract; Patchouli Select CO ₂ Extract
Botanical Name	<i>Pogostemon cablin</i> (Blanco) Benth.
Botanical Family	Lamiaceae
INCI Name	Pogostemon Cablin Leaf Oil
Product Type	Natural Botanical CO ₂ Extract / Natural Complex Substance
Plant Part	Dried Leaves and Aerial Parts
Extraction Method	Supercritical Carbon Dioxide Extraction
Primary CAS Number	8014-09-3
Alternative CAS Number	84238-39-1
EC Number associated with CAS 84238-39-1	282-493-4
Country of Origin	Indonesia
Physical Form	Viscous Liquid
Recommended Shelf Life	24 Months

Different suppliers may use separate EC or REACH registration identifiers for specific commercial patchouli preparations. The original manufacturer's documentation shall take precedence.

1.2 Relevant Identified Uses

- Professional perfumery
- Fine-fragrance formulation
- Cosmetic fragrance applications
- Soap and personal-care fragrance
- Home-fragrance products
- Incense and aromatic products
- Industrial fragrance compounding
- Research and product development

1.3 Uses Advised Against



- Internal consumption
- Direct undiluted skin application
- Pharmaceutical or medicinal use
- Food or flavour use unless separately approved
- Household use without professional guidance
- Use by children
- Use without a finished-product safety assessment

1.4 Supplier Details

Aromology Trading LLC
G05 Al Ghazal Building
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Dubai, United Arab Emirates

Website: www.aromology.com

Email: info@aromology.com

Telephone: +971 505197601

1.5 Emergency Telephone Number

Contact the nearest Poison Control Centre, emergency medical service or qualified medical professional.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Representative classification according to Regulation (EC) No. 1272/2008:

Hazard Class	Category	Hazard Statement
Aspiration Hazard	Category 1	H304
Hazardous to the Aquatic Environment – Chronic	Category 2	H411

Hazard Statements

- H304: May be fatal if swallowed and enters airways.
- H411: Toxic to aquatic life with long-lasting effects.

Classification is representative and must be confirmed against the original manufacturer's current batch-specific Safety Data Sheet.

2.2 Label Elements



Signal Word

Danger

Hazard Pictograms

- GHS08 – Health Hazard
- GHS09 – Environment

Hazard Statements

- H304: May be fatal if swallowed and enters airways.
- H411: Toxic to aquatic life with long-lasting effects.

Precautionary Statements

- P261: Avoid breathing vapours, mist or spray.
- P273: Avoid release to the environment.
- P280: Wear protective gloves and eye protection.
- P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
- P331: Do NOT induce vomiting.
- P391: Collect spillage.
- P405: Store locked up.
- P501: Dispose of contents and container in accordance with applicable regulations.

2.3 Other Hazards

- The product is a Natural Complex Substance with batch-dependent composition.
- Oxidised material may have increased irritation or sensitisation potential.
- Spilled material may create a slipping hazard.
- Vapours may be irritating when the product is strongly heated.
- The product is not expected to meet PBT or vPvB criteria based on available representative information.
- No endocrine-disrupting properties have been established for the complete natural extract.
- The product must not be swallowed because of the aspiration hazard.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance



Component	CAS Number	Content
Patchouli Oil CO ₂ Extract	8014-09-3 / 84238-39-1	100%

3.2 Representative Naturally Occurring Constituents

Constituent	CAS Number	Representative Range
Patchouli Alcohol / Patchoulol	5986-55-0	30–45%
α-Guaiene	3691-12-1	8–18%
Seychellene	20085-93-2	5–12%
α-Patchoulene	560-32-7	3–8%
β-Patchoulene	514-51-2	1–6%
Pogostol	21698-41-9	1–5%
β-Caryophyllene	87-44-5	1–5%
Norpatchoulenol	Not established	Trace–3%
Limonene	5989-27-5	Trace / batch dependent
Linalool	78-70-6	Trace / batch dependent

Supercritical extraction may retain a greater proportion of heavy, less volatile sesquiterpenes and wax-like botanical components compared with conventional steam-distilled oil.

The exact composition must be confirmed through batch-specific GC/MS analysis.

SECTION 4: FIRST-AID MEASURES

4.1 Description of First-Aid Measures

After Inhalation

- Move the affected person to fresh air.
- Keep the person warm and at rest.
- Seek medical attention if coughing, dizziness, headache or breathing discomfort persists.

After Skin Contact

- Remove contaminated clothing and footwear.
- Wash the affected area thoroughly with soap and water.
- Do not use organic solvents to clean the skin.
- Obtain medical advice if redness, irritation or rash develops.

After Eye Contact



- Rinse cautiously with clean water for at least 15 minutes.
- Remove contact lenses if present and easy to do.
- Continue rinsing while holding the eyelids open.
- Obtain medical advice if irritation persists.

After Ingestion

- Immediately contact a Poison Centre or physician.
- Do not induce vomiting.
- Rinse the mouth carefully with water.
- Keep the person at rest.
- Never give anything by mouth to an unconscious person.

Aspiration into the lungs may cause chemical pneumonitis and may be fatal.

4.2 Most Important Symptoms and Effects

Possible symptoms include:

- Nausea
- Vomiting
- Gastrointestinal discomfort
- Coughing
- Breathing difficulty
- Chemical pneumonitis following aspiration
- Temporary eye or skin irritation
- Headache or dizziness after excessive vapour exposure

4.3 Indication of Immediate Medical Attention

Immediate medical assessment is required following ingestion or suspected aspiration.

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media

Use:

- Carbon dioxide
- Dry chemical powder



- Alcohol-resistant foam
- Sand
- Water fog for cooling surrounding containers

5.2 Unsuitable Extinguishing Media

Do not use a direct high-pressure water jet, as this may spread the burning oil.

5.3 Specific Hazards

Heating or combustion may produce:

- Carbon monoxide
- Carbon dioxide
- Dense smoke
- Irritating organic vapours
- Unidentified thermal-decomposition products

5.4 Advice for Firefighters

- Wear self-contained breathing apparatus.
- Wear full protective clothing.
- Cool exposed containers using water spray.
- Prevent contaminated fire-fighting water from entering drains, soil or waterways.
- Approach the fire from upwind where possible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

- Ensure adequate ventilation.
- Keep unnecessary and unprotected personnel away.
- Avoid breathing vapours or mist.
- Avoid contact with skin and eyes.
- Wear suitable gloves and eye protection.
- Remove ignition sources.
- Exercise caution because the spilled product may create slippery surfaces.

6.2 Environmental Precautions

- Prevent entry into drains, soil, groundwater and surface water.
- Contain significant spills.



- Notify the relevant environmental authority if an uncontrolled release occurs.

6.3 Methods for Containment and Cleaning

- Stop the leak where this can be done safely.
- Contain with sand, earth, vermiculite or another inert absorbent.
- Collect absorbed material in a sealed and labelled waste container.
- Clean the affected surface using detergent and water.
- Do not use combustible absorbents such as sawdust.
- Dispose of waste through an authorised contractor.

6.4 Reference to Other Sections

See:

- Section 8 for personal protective equipment
- Section 13 for disposal information

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

- Handle in a well-ventilated area.
- Avoid inhalation of vapours, mist or aerosols.
- Avoid prolonged or repeated skin contact.
- Prevent contact with eyes.
- Wear suitable gloves and eye protection.
- Do not eat, drink or smoke in handling areas.
- Wash hands thoroughly after use.
- Keep containers tightly closed when not in use.
- Use clean, dry and compatible dispensing equipment.
- Avoid release to the environment.
- Minimise exposure to air to reduce oxidation.
- Avoid excessive heating.

7.2 Conditions for Safe Storage

Store:

- In tightly closed original or compatible containers
- In a cool, dry and well-ventilated location
- Protected from direct sunlight



- Protected from air and moisture
- Away from heat and ignition sources
- Away from strong oxidising agents
- Preferably between 5 °C and 20 °C
- With minimum container headspace where practical

Suitable container materials may include:

- Aluminium
- Stainless steel
- Fluorinated HDPE
- Amber glass
- Suitably lined metal containers

The product may naturally thicken, darken, crystallise partially or form sediment at lower temperatures. Gentle warming and thorough mixing may restore uniformity.

7.3 Specific End Uses

For professional perfumery, fragrance and cosmetic-product formulation.

Finished-product use levels must be determined through an appropriate IFRA review and safety assessment.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

No occupational exposure limit has been established for the complete Natural Complex Substance.

Exposure to vapours, aerosols and direct skin contact should be minimised.

8.2 Engineering Controls

- Provide adequate general ventilation.
- Use local exhaust ventilation where the product is heated, sprayed or handled in bulk.
- Provide accessible eyewash facilities.
- Provide emergency washing facilities where large quantities are handled.

8.3 Personal Protective Equipment



Eye and Face Protection

Wear chemical safety glasses or goggles.

Use a face shield where splashing is possible.

Hand Protection

Wear chemical-resistant gloves, such as:

- Nitrile rubber
- Neoprene
- Butyl rubber

Replace contaminated or damaged gloves promptly.

Skin and Body Protection

Wear suitable protective clothing to prevent prolonged or repeated contact.

Respiratory Protection

Normally not required where adequate ventilation is provided.

Use an approved organic-vapour respirator where:

- Ventilation is inadequate
- The product is heated
- Mist or aerosol is generated
- Bulk transfer creates significant vapour exposure

Hygiene Measures

- Wash hands and exposed skin thoroughly after handling.
- Remove contaminated clothing.
- Wash contaminated workwear before reuse.
- Keep the product away from food, beverages and animal feed.

Environmental Exposure Controls

Prevent uncontrolled release into drains, soil and waterways.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Representative Information
Physical State	Viscous liquid
Appearance	Clear to slightly opalescent or semi-viscous extract
Colour	Amber to dark reddish-brown
Odour	Rich, earthy, woody, balsamic, sweet and characteristic of patchouli
Odour Threshold	Not determined
Melting / Freezing Point	Not determined; may thicken at low temperature
Initial Boiling Point	Not determined for the natural mixture
Flammability	Combustible when strongly heated
Lower and Upper Explosive Limits	Not determined
Flash Point	Generally above 100 °C
Auto-Ignition Temperature	Not determined
Decomposition Temperature	Not determined
pH	Not applicable
Kinematic Viscosity	Not determined
Water Solubility	Insoluble or practically insoluble
Solubility in Ethanol	Soluble, with possible slight opalescence
Vapour Pressure	Low at ambient temperature
Relative Density at 20 °C	Approximately 0.950–0.990
Refractive Index at 20 °C	Approximately 1.500–1.520
Optical Rotation	Approximately –65° to –35°
Patchouli Alcohol	Typically 30–45%
Residual Conventional Solvents	Not intentionally present
Particle Characteristics	Not applicable

All values are representative. Batch-specific Certificate of Analysis data take precedence.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reactivity is expected under normal handling and storage conditions.

10.2 Chemical Stability



Stable when stored tightly sealed and protected from heat, light, moisture and air.

Natural changes in colour, viscosity and odour may occur during storage.

10.3 Possibility of Hazardous Reactions

Hazardous polymerisation is not expected.

The product may react with strong oxidising agents.

10.4 Conditions to Avoid

Avoid:

- Excessive heat
- Direct sunlight
- Flames and sparks
- Prolonged exposure to air
- Moisture contamination
- Repeated heating
- Cross-contamination
- Storage outside recommended conditions

10.5 Incompatible Materials

- Strong oxidising agents
- Strong acids
- Strong alkalis
- Reactive chemicals

10.6 Hazardous Decomposition Products

Thermal decomposition may produce:

- Carbon monoxide
- Carbon dioxide
- Dense smoke
- Irritating organic vapours

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Hazard Classes



Acute Toxicity

Representative patchouli-oil data indicate:

Route	Representative Result
Oral LD ₅₀	Greater than 5,000 mg/kg, rat
Dermal LD ₅₀	Greater than 5,000 mg/kg, rabbit

The results relate to representative patchouli oil and may not constitute testing of this exact CO₂ extract.

Skin Corrosion / Irritation

Not generally classified as corrosive.

Prolonged or repeated contact may cause irritation in susceptible individuals.

Serious Eye Damage / Irritation

Not generally classified for serious eye damage.

Direct contact may cause temporary discomfort or irritation.

Respiratory or Skin Sensitisation

The complete product is not universally classified as a sensitiser; however:

- Naturally occurring fragrance constituents may cause allergic reactions.
- Oxidised material may have increased sensitisation potential.
- Undiluted skin exposure should be avoided.

Germ-Cell Mutagenicity

No classification established for the complete CO₂ extract.

Carcinogenicity

No classification established for the complete natural extract.

Reproductive Toxicity

No classification established for the complete natural extract.

Specific Target Organ Toxicity – Single Exposure



Not classified based on available representative information.

Specific Target Organ Toxicity – Repeated Exposure

Not classified based on available representative information.

Aspiration Hazard

May be fatal if swallowed and enters airways.

11.2 Likely Routes of Exposure

- Skin contact
- Eye contact
- Inhalation of heated vapour, mist or aerosol
- Accidental ingestion

11.3 Symptoms Related to Exposure

- Skin discomfort
- Temporary eye irritation
- Headache or dizziness after excessive vapour exposure
- Nausea or gastrointestinal discomfort
- Coughing or breathing difficulty following aspiration
- Chemical pneumonitis

11.4 Endocrine-Disrupting Properties

No endocrine-disrupting properties have been established for the complete product.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The product is classified as:

Toxic to aquatic life with long-lasting effects.

Representative patchouli-oil aquatic data include:

Test Organism	Representative Result
Fish	LC ₅₀ approximately 5.7 mg/L



Daphnia	EC ₅₀ , 48 hours, approximately 11 mg/L
Algae	ErC ₅₀ , 72 hours, approximately 73 mg/L

These values may not represent testing of this exact Indonesian CO₂ extract.

12.2 Persistence and Degradability

Complete batch-specific biodegradation data are not available.

Individual natural constituents may show different biodegradation rates.

12.3 Bioaccumulative Potential

Some lipophilic sesquiterpene constituents may have the potential to bioaccumulate.

12.4 Mobility in Soil

The product is poorly soluble in water and may adsorb to soil and sediment.

12.5 PBT and vPvB Assessment

The complete natural material is not expected to meet PBT or vPvB criteria based on available representative information.

12.6 Endocrine-Disrupting Properties

No confirmed endocrine-disrupting properties have been identified for the complete extract.

12.7 Other Adverse Effects

Avoid uncontrolled release into the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

- Dispose of unused product through an authorised chemical-waste contractor.
- Do not discharge into drains, waterways or soil.
- Incineration may be appropriate where legally permitted.
- Dispose of contaminated absorbents as chemical waste.
- Empty containers may retain hazardous residues.



13.2 Contaminated Packaging

Dispose of or recycle packaging in accordance with local regulations after appropriate cleaning.

Do not reuse contaminated containers for food, beverages or household purposes.

SECTION 14: TRANSPORT INFORMATION

Transport Parameter	Details
UN Number	UN 3082
UN Proper Shipping Name	Environmentally Hazardous Substance, Liquid, N.O.S.
Technical Name	Patchouli Oil CO ₂ Extract
Transport Hazard Class	9
Packing Group	III
Environmental Hazard	Yes
Marine Pollutant	Yes
ADR / RID	Class 9, UN 3082
IMDG	Class 9, UN 3082
IATA	Class 9, UN 3082
EmS Code	F-A, S-F
Limited Quantity	Subject to applicable transport provisions
Bulk Transport	Not intended for bulk maritime transport

Transport classification must be confirmed against:

- The original manufacturer's current SDS
- The measured flash point
- The quantity shipped
- Packaging configuration
- Applicable carrier rules
- National dangerous-goods requirements

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations

Prepared with reference to:



- Regulation (EC) No. 1907/2006 – REACH
- Regulation (EU) 2020/878
- Regulation (EC) No. 1272/2008 – CLP
- Regulation (EC) No. 1223/2009 on cosmetic products
- Regulation (EU) 2023/1545 concerning fragrance-allergen labelling
- Current IFRA Standards
- ADR
- RID
- IMDG
- IATA dangerous-goods provisions

15.2 Chemical Safety Assessment

A formal chemical safety assessment has not been conducted by Aromology Trading LLC for this complete Natural Complex Substance.

Finished-product manufacturers are responsible for:

- Confirming batch-specific composition
- Reviewing the original manufacturer's SDS
- Confirming applicable classification
- Calculating IFRA restrictions
- Assessing fragrance-allergen labelling
- Determining the safe use level
- Conducting the finished cosmetic-product safety assessment
- Meeting local registration and labelling requirements

SECTION 16: OTHER INFORMATION

16.1 Full Text of Hazard Statements

- H304: May be fatal if swallowed and enters airways.
- H411: Toxic to aquatic life with long-lasting effects.

16.2 Abbreviations

Abbreviation Meaning

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging Regulation
CO ₂	Carbon Dioxide



EC	European Community
GC/MS	Gas Chromatography–Mass Spectrometry
IATA	International Air Transport Association
IFRA	International Fragrance Association
IMDG	International Maritime Dangerous Goods Code
INCI	International Nomenclature of Cosmetic Ingredients
LC ₅₀	Median Lethal Concentration
LD ₅₀	Median Lethal Dose
NCS	Natural Complex Substance
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

16.3 Recommended Shelf Life

24 months from the manufacturing date when stored unopened under recommended conditions.

16.4 Issue Date

23 July 2026

16.5 Revision

Version 1.0

DISCLAIMER

This Safety Data Sheet has been prepared using representative botanical, compositional and commercial safety information for Patchouli Oil CO₂.

The product is a Natural Complex Substance. Its exact composition, physical properties and hazard classification may vary according to:

- Botanical source
- Growing region
- Harvest conditions
- Leaf drying or fermentation
- Extraction pressure and temperature



- Separation parameters
- Storage conditions
- Oxidation
- Individual production batch

Supercritical carbon dioxide is used as the extraction medium and normally evaporates during processing. The statement “CO₂ extract” does not by itself confirm the absence of all residues, contaminants or processing aids unless supported by batch-specific testing.

The original manufacturer’s current:

- Safety Data Sheet
- Certificate of Analysis
- GC/MS report
- IFRA statement
- Allergen declaration
- Transport classification

shall take precedence wherever available.

This product is supplied exclusively as a professional perfumery raw material. It is not intended for internal consumption, medicinal use, food use or direct undiluted skin application.

Aromology Trading LLC accepts no responsibility for inappropriate handling, storage, formulation, labelling or use outside the recommended professional applications.

AUTHORISED BY

Fozia Khot

Director

Aromology Trading LLC