



CERTIFICATE OF ANALYSIS (COA)

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

Co-distilled Grapefruit & Cedarwood Oil

Product Identification

Parameter	Details
Product Name	Co-distilled Grapefruit & Cedarwood Oil
Alternative Name	Grapefruit-Cedarwood Co-distillate
Product Type	Natural co-distilled essential oil
Chemical Identity	Natural complex substance
Botanical Source 1	<i>Citrus × paradisi</i> Macfad.
Plant Part	Grapefruit peel
Botanical Source 2	Cedarwood species to be confirmed
Plant Part	Wood
Extraction Method	Steam or hydro co-distillation
CAS Number	Not assigned to the complete co-distilled product
EC Number	Not assigned to the complete co-distilled product
Grade	Professional perfumery grade

Cedarwood Botanical Identity

The exact botanical species must be entered before formal issue:

Botanical and Processing Information

Parameter	Specification
Grapefruit Botanical Name	<i>Citrus × paradisi</i>
Grapefruit Plant Part	Peel
Grapefruit Processing Before Co-distillation	To be confirmed
Cedarwood Botanical Name	To be confirmed
Cedarwood Plant Part	Wood



Co-distillation Ratio	Proprietary/batch-specific
Distillation Method	Steam or hydro co-distillation
Added Carrier	None expected unless declared
Added Antioxidant	None expected unless declared

Analytical Specifications

Test	Specification	Representative Result	Test Method
Appearance	Clear mobile to slightly viscous liquid	Complies	Visual
Colour	Pale yellow to golden amber	Golden yellow	Visual
Odour	Fresh grapefruit peel with dry cedarwood and soft smoky facets	Complies	Organoleptic
Relative Density at 20°C	0.860–0.970	0.914	Density meter
Refractive Index at 20°C	1.4650–1.5100	1.4882	Refractometer
Optical Rotation	Batch dependent	+31.5°	Polarimetry
Acid Value	Maximum 5.0 mg KOH/g	0.9 mg KOH/g	Titration
Peroxide Value	Maximum 15.0 meq O ₂ /kg	3.2 meq O ₂ /kg	Titration
Water Content	Maximum 1.0%	0.18%	Karl Fischer
Flash Point	Batch-specific; minimum 45°C recommended	58°C	Closed cup
Solubility in Ethanol	Soluble or dispersible	Pass	Visual
Solubility in Water	Insoluble	Complies	Visual
Foreign Matter	Absent	Pass	Visual
GC-MS Profile	Conforms to approved reference	Pass	GC-MS
Furocoumarin Status	Batch testing required	Not tested	HPLC/LC-MS

All numerical results are representative placeholders and must be replaced with actual batch findings.

Representative GC-MS Profile

Constituent	CAS No.	Representative Range
D-Limonene	5989-27-5	25–65%
Alpha-Cedrene	469-61-4	2–18%
Beta-Cedrene	546-28-1	1–10%
Cedrol	77-53-2	1–12%
Thujopsene	470-40-6	1–12%
Beta-Myrcene	123-35-3	1–6%



Alpha-Pinene	80-56-8	0.5–5%
Beta-Pinene	127-91-3	0.2–4%
Sabinene	3387-41-5	0.1–3%
Linalool	78-70-6	0.1–2%
Nootkatone	4674-50-4	Trace–2%
Citral	5392-40-5	Trace–0.5%
Geraniol	106-24-1	Trace–0.3%
Himachalenes/Atlantones	Various	Species-dependent
Other Terpenes and Sesquiterpenes	Various	Balance

The expected profile changes significantly according to the cedarwood botanical species and botanical ratio.

Purity and Quality Declaration

Parameter	Status
Natural Botanical Material	Yes
Synthetic Fragrance Ingredients	Not intentionally added
Added Colour	Not intentionally added
Added Preservatives	Not intentionally added
Carrier Solvent	Not intentionally added unless declared
Animal-Derived Ingredients	Not intentionally added
Phthalates	Not intentionally added
GMO Material	Not expected
Irradiation	Not irradiated
Residual Extraction Solvents	Not expected from steam/hydro-distillation
Direct Undiluted Skin Use	Not recommended

Storage

Store:

- At approximately 15–25 °C
- In the original tightly closed container
- Away from direct sunlight
- Away from heat, sparks and ignition sources
- Away from strong oxidising agents
- With minimum exposure to air and moisture
- Using clean and dry dispensing equipment

For extended storage, minimise container headspace and monitor peroxide value.



Shelf Life

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

Quality Conclusion

Based on the representative analytical specifications, the material conforms to the proposed quality standard for:

Co-distilled Grapefruit & Cedarwood Oil

The product is suitable for professional fragrance formulation subject to:

- Batch-specific GC-MS confirmation
- Cedarwood species verification
- Furocoumarin and phototoxicity assessment
- IFRA assessment
- EU allergen calculation
- Finished-product safety assessment

Disclaimer

This Certificate of Analysis is a representative professional template and is not evidence that a specific batch has been analytically tested by Aromology Trading LLC.

Before formal issue, verify or replace the stated values using:

- Original manufacturer's Certificate of Analysis
- Batch-specific GC-MS report
- Botanical identification records
- Co-distillation ratio
- Density and refractive-index testing
- Optical-rotation testing
- Flash-point testing
- Peroxide-value testing
- Furocoumarin analysis
- Quantitative allergen data

Authorised By:

Fozia Khot
Director