



CERTIFICATE OF ANALYSIS (COA)

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PRODUCT INFORMATION

Item	Details
Product Name	Gurjun Balsam Dark
Alternative Name	Gurjun Balsam Oil – Alpha-Copaene Type
Botanical Source	<i>Dipterocarpus turbinatus</i> C.F.Gaertn. / <i>Dipterocarpus</i> spp.
INCI Name	Dipterocarpus Turbinatus Balsam Oil
Primary CAS Number	8030-55-5
EC Number	232-444-8
Plant Material	Oleoresin / balsamic exudate
Extraction Method	Steam distillation of the balsamic exudate
Product Type	Natural essential oil / Natural Complex Substance
Chemotype	Alpha-Copaene Type
Issue Date	17 July 2026
Recommended Retest Period	24 months under recommended storage conditions

ORGANOLEPTIC AND PHYSICAL SPECIFICATIONS

Parameter	Representative Specification	Representative Result	Status
Appearance	Mobile to slightly viscous liquid	Complies	Pass
Colour	Amber-brown to dark brown	Dark brown	Pass
Odour	Deep woody, balsamic, smoky, earthy and mildly spicy	Characteristic	Pass
Relative Density at 20–25 °C	0.910–0.970	0.923	Pass
Refractive Index at 20 °C	1.496–1.516	1.499	Pass



Optical Rotation	Batch dependent; commonly negative	Conforms	Pass
Flash Point	Usually above 93 °C	Above 93 °C	Pass
Solubility in Water	Insoluble	Complies	Pass
Solubility in Alcohol	Soluble or dispersible	Complies	Pass
Foreign Matter	Free from visible contamination	None observed	Pass
Added Carrier Oil	Not permitted unless declared	Not detected	Pass
Added Synthetic Fragrance	Not permitted	Not detected	Pass

REPRESENTATIVE GC-MS PROFILE

Naturally Occurring Constituent	CAS Number	Representative Range	Representative Result
Alpha-Copaene	3856-25-5	42.0–52.0%	47.2%
Beta-Caryophyllene	87-44-5	18.0–28.0%	22.6%
Alpha-Humulene	6753-98-6	3.8–6.2%	4.9%
Alpha-Gurjunene	489-40-7	Trace–5.0%	2.1%
Beta-Gurjunene	17334-55-3	Trace–4.0%	1.7%
Aromadendrene	489-39-4	Trace–4.0%	1.5%
Alloaromadendrene	25246-27-9	Trace–4.0%	1.2%
Gamma-Gurjunene	22567-17-5	Trace–3.0%	0.9%
Other Natural Sesquiterpenes	Various	Balance	Balance

The reported composition is representative of copaene-type Gurjun Balsam and is not a substitute for batch-specific GC-MS testing.

QUALITY AND PURITY DECLARATION

The representative material is:

- Derived from the balsamic exudate of *Dipterocarpus* species.
- Characterised by alpha-copaene as its principal volatile constituent.
- Free from intentionally added synthetic fragrance materials.
- Free from intentionally added carrier oils or diluents unless specifically declared.
- Free from visible foreign matter.
- Intended for professional perfumery, fragrance and cosmetic formulation.
- Not intended for internal consumption as supplied.

Natural variation may occur according to species, geographical source, resin maturity, distillation conditions, storage and production batch.



STORAGE

Store:

- In the original tightly sealed container.
- In a cool, dry and well-ventilated location.
- Protected from heat, direct sunlight and atmospheric oxidation.
- Away from strong oxidising agents.
- With minimal container headspace.
- Out of reach of children.

CONCLUSION

THE REPRESENTATIVE MATERIAL COMPLIES WITH THE ABOVE QUALITY SPECIFICATIONS

The specifications and analytical values shown are representative. The original producer's batch-specific Certificate of Analysis and analytical results shall take precedence where available.

Authorised by:

Fozia Khot
Director