



CERTIFICATE OF ANALYSIS (COA)

PRODUCT IDENTIFICATION

Product Name: Gurjun Balsam Dark
Supplier Product Name: Gurjun Balsam Res
Botanical Source: Dipterocarpus spp.
INCI Name: Dipterocarpus Turbinatus Balsam Oil
CAS Number: 8030-55-5
Material Type: Natural balsam/resin essential oil
Plant Part: Gum and resin
Country of Origin: Indonesia
Process Description: Tree exudate harvested and collected by heating the tree trunk
Principal Chemical Type: Gurjunene-rich sesquiterpene profile

BATCH IDENTIFICATION

Parameter	Details
Van Aroma Vendor ID	305574
Purchase Order Number	4501527842
Customer IPC	947301
Lot Number	26010207-1
Sample Request Number	SR-2601056
Product IPC	GB-003
Manufacturing Date	19/01/2026
Date of Analysis	19/01/2026
Best-Before Date	18/01/2029

PHYSICAL AND ORGANOLEPTIC ANALYSIS

Test	Specification	Result	Status
Visual Description	Red to dark brown	Red to dark brown	Conforms
Odour Evaluation	Firmenich reference standard	Complies with standard	Conforms
Physical State	Liquid/natural balsamic oil	Characteristic	Conforms

PHYSICAL AND CHEMICAL ANALYSIS

Test	Method/Temperature	Lower Limit	Upper Limit	Result
------	--------------------	-------------	-------------	--------

Test	Method/Temperature	Lower Limit	Upper Limit	Result
Refractive Index	ISO 280:1998 at 20 °C	1.5020	1.5140	1.5115
Specific Gravity	ISO 279:1998 at 25 °C	0.9390	0.9600	0.9526
Optical Rotation	ISO 592 at 25 °C	-145 °	-50 °	-74.11 °
Acid Value	ISO 1242	2.00 mg KOH/g	8.00 mg KOH/g	3.33 mg KOH/g

GC ASSAY/COMPOSITIONAL ANALYSIS

Component	Molecular Class	Unit	Lower Limit	Upper Limit	Assay Result
Beta-Caryophyllene	Sesquiterpene	%	0.00	3.00	2.51
Alpha-Gurjunene	Sesquiterpene	%	62.00	73.00	64.90
Beta-Gurjunene	Sesquiterpene	%	Not specified	30.00	17.28
Alpha-Copaene	Sesquiterpene	%	Not specified	1.80	0.39
Alloaromadendrene	Sesquiterpene	%	5.00	20.00	5.20

PRINCIPAL CONSTITUENTS

The principal reported sesquiterpene constituents are:

- Alpha-Gurjunene – 64.90%
- Beta-Gurjunene – 17.28%
- Alloaromadendrene – 5.20%
- Beta-Caryophyllene – 2.51%
- Alpha-Copaene – 0.39%

Total Reported Gurjunene Content:

Alpha-Gurjunene 64.90% + Beta-Gurjunene 17.28% = 82.18%

The high combined Gurjunene concentration confirms that the supplied material is the Gurjunene Type of Gurjun Balsam.

QUALITY ASSESSMENT

Quality Parameter	Assessment
Appearance	Conforms
Odour	Conforms
Refractive Index	Within specification
Specific Gravity	Within specification



Quality Parameter	Assessment
Optical Rotation	Within specification
Acid Value	Within specification
Beta-Caryophyllene	Within specification
Alpha-Gurjunene	Within specification
Beta-Gurjunene	Within specification
Alpha-Copaene	Within specification
Alloaromadendrene	Within specification
Overall Quality	Approved

ORGANOLEPTIC PROFILE

Appearance: Red to dark-brown liquid

Odour: Characteristic Gurjun Balsam odour conforming to the approved Firmenich reference standard

Odour Family: Woody and balsamic

Secondary Facets: Earthy, warm, resinous and aromatic

Chemical Type: Gurjunene-rich

STORAGE CONDITIONS

Store in tightly closed and preferably full containers in a cool, dry and well-ventilated place.

Protect from:

- Direct sunlight
- Excessive heat
- Moisture
- Prolonged air exposure
- Open flames and ignition sources
- Strong acids
- Strong alkalis
- Oxidising agents

Recommended Storage Temperature: Below 25 °C

QUALITY CONCLUSION

The batch identified as Lot 26010207-1 conforms to the approved physical, chemical, organoleptic and compositional specifications for Gurjun Balsam Dark – Gurjunene Type.

The material contains:



- 64.90% Alpha-Gurjunene
- 17.28% Beta-Gurjunene
- Combined Gurjunene content of 82.18%

Quality Status: APPROVED

Overall Result: CONFORMS TO SPECIFICATION

DOCUMENT VALIDITY

Issue/Analysis Date: 23/07/2025

Expiry/Best-Before Date: 22/07/2028

Validity Period: Three years

Supplier

Aromology Trading LLC

G05 Al Ghazal Building

Nadd Al Hamar

Dubai, United Arab Emirates

Website: www.aromology.com

Email: info@aromology.com

Authorised by:

Fozia Khot

Director