



CERTIFICATE OF ANALYSIS (COA)

Product Name	BALSAM FIR ESSENTIAL OIL
Botanical Name	Abies balsamea
Product Code	GF2011
CAS #	8021-28-1 ; 85085-34-3
EINECS #	285-364-0
INCI Name	Abies Balsamea Needle Oil

Batch #	10112601
Manufacturing Date	JANUARY 2026
Best Before Date	DECEMBER 2027

Part Used	Needles
Extraction Method	Steam Distilled Essential Oil
Quality	100% Pure and Natural
Note Classification	Middle to Top Note

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULTS</u>
Appearance	Colorless to pale yellow transparent liquid	CONFORMS
Odour	Rich, deep balsamic, evergreen aroma of freshly crushed fir needles	CONFORMS
Refractive Index	1.470 - 1.480 @ 20°C	1.475
Specific Gravity (g/mL)	0.867 - 0.878 @ 25°C	0.874
Optical Rotation (°)	-11° to -7°	CONFORMS
Solubility	Soluble in alcohols and fixed oils; Insoluble in water	CONFORMS

Comments	Odour quality is excellent
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<u>MICROBIAL ANALYSIS</u>	<u>SPECIFICATIONS</u>	<u>STANDARDS</u>	<u>RESULTS</u>
Aerobic Mesophilic Bacterial Count	< 100 CFU/g	ISO 21149	CONFORMS
Yeast and Mould	< 10 CFU/g	ISO 16212	CONFORMS
Candida albicans	ABSENT / 1g	ISO 18416	CONFORMS
Escherichia coli	ABSENT / 1g	ISO 21150	CONFORMS
Pseudomonas aeruginosa	ABSENT / 1g	ISO 22717	CONFORMS
Staphylococcus aureus	ABSENT / 1g	ISO 22718	CONFORMS

<u>HEAVY METAL TESTS</u>	<u>SPECIFICATIONS</u>	<u>STANDARDS</u>	<u>RESULTS</u>
Lead: Pb (mg/kg or ppm)	< 10 ppm	na	CONFORMS
Arsenic: As (mg/kg or ppm)	< 2 ppm	na	CONFORMS
Mercury: Hg (mg/kg or ppm)	< 1 ppm	na	CONFORMS

STABILITY AND STORAGE:

Keep in tightly closed container in a cool and dry place, protected from sunlight. When stored for more than 24 months, quality should be checked before use.

As it is electronically generated document, hence no signature required.

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