

CERTIFICATE OF ANALYSIS (COA)

Product Name	BABASSU OIL
Botanical Name	Orbignya oleifera
CAS #	91078-92-1
EINECS #	293-376-2
INCI Name	Orbignya Oleifera Seed Oil

Part Used	Seeds
Extraction Method	Cold Pressed
Quality	100% Pure and Natural

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULT</u>
Appearance	Light yellow colored liquid at room temperature; off white soft fat at temperatures less than 20°C	CONFORMS
Odour	Characteristic mild odour	CONFORMS
Refractive Index	1.450 - 1.490 @ 20°C	1.465
Specific Gravity (g/mL)	0.905 - 0.915 @ 20°C	0.911
Saponification Value (mgKOH/g)	240 – 260	248
Peroxide Value (meq O ₂ /kg)	Less than 5.0	CONFORMS
Iodine Value (g I ₂ /100g)	13 - 18	15
Free Fatty Acids (% oleic)	Less than 1.0	CONFORMS
Solubility	Soluble in cosmetic esters and fixed oils; Insoluble in water	CONFORMS

FATTY ACID COMPOSITION:

FATTY ACID	C-CHAIN	SPECIFICATIONS (%)	RESULTS
Caprylic Acid	<u>C8:0</u>	<u>2.00 – 11.00</u>	<u>5.70</u>
Capric Acid	<u>C10:0</u>	<u>1.00 – 8.00</u>	<u>4.80</u>
Lauric Acid	<u>C12:0</u>	<u>40.00 – 48.00</u>	<u>43.60</u>
Myristic Acid	<u>C14:0</u>	<u>15.00 – 20.00</u>	<u>17.30</u>
Palmitic Acid	<u>C16:0</u>	<u>7.00 – 11.00</u>	<u>8.90</u>
Stearic Acid	<u>C18:0</u>	<u>1.00 – 11.00</u>	<u>4.60</u>
Oleic Acid	<u>C18:1 (n-9)</u>	<u>10.00 – 15.00</u>	<u>14.00</u>

MICROBIAL ANALYSIS	<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

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