

CERTIFICATE OF ANALYSIS (COA)

Product Name	DESERT DATE OIL
Botanical Name	Balanites aegyptiaca
INCI Name	Balanites Aegyptiaca (Desert Date) Seed Oil
Part Used	Seeds
Extraction Method	Cold Pressed
Quality	100% Pure and Natural

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULTS</u>
Appearance	Pale yellow to golden colored liquid	CONFORMS
Odour	Characteristic mild odour	CONFORMS
Refractive Index	1.460 - 1.480 @ 20°C	1.471
Specific Gravity (g/mL)	0.920 - 0.945 @ 20°C	0.927
Saponification Value (mgKOH/g)	165 - 230	CONFORMS
Peroxide Value (meq O ₂ /kg)	Less than 10.0	CONFORMS
Iodine Value (g I ₂ /100g)	75 - 125	CONFORMS
Free Fatty Acids (as % oleic)	Less than 2.0	CONFORMS
Optical Rotation (°)	+5° to +20°	CONFORMS
Solubility	Soluble in cosmetic esters and fixed oils; Insoluble in water	CONFORMS

FREE ACID COMPOSITION

FATTY ACID	C-CHAIN	SPECIFICATIONS (%)	RESULTS (%)
Palmitic Acid	C16:0	10.00 – 24.00	12.20
Stearic Acid	C18:0	2.00 – 15.00	8.30
Oleic Acid	C18:1 (n-9)	22.00 – 45.00	30.70
Linoleic Acid	C18:2 (n-6)	31.00 – 51.00	47.80

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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