

CERTIFICATE OF ANALYSIS (COA)

Product Name	DRAGONFRUIT SEED OIL
Botanical Name	Hylocereus undatus
INCI Name	Hylocereus Undatus (Dragonfruit) 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 yellow colored liquid	CONFORMS
Odour	Characteristic mild odour	CONFORMS
Refractive Index	1.450 - 1.490 @ 20°C	1.467
Specific Gravity (g/mL)	0.890 - 0.940 @ 20°C	0.916
Saponification Value (mgKOH/g)	180 - 210	194
Peroxide Value (meq O ₂ /kg)	Less than 10.0	CONFORMS
Iodine Value (g I ₂ /100g)	50 - 120	CONFORMS
Acid Value (mgKOH/g)	Maximum 2.0	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	15.00 – 18.00	15.70
Palmitoleic Acid	C16:1	Maximum 1.0	0.40
Stearic Acid	C18:0	4.00 – 8.00	4.30
Oleic Acid	C18:1 (n-9)	19.00 – 24.00	23.20
Linoleic Acid	C18:2 (n-6)	45.00 – 55.00	53.30
Alpha-Linolenic Acid	C18:3 (n-3)	Maximum 2.0	1.50

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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