

CERTIFICATE OF ANALYSIS (COA)

Product Name	PISTACHIO NUT OIL
Botanical Name	Pistacia vera
CAS #	90082-81-8
EINECS #	290-173-0
INCI Name	Pistacia Vera (Pistachio) Seed Oil

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

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULTS</u>
Appearance	Greenish yellow to olive green colored liquid	CONFORMS
Odour	Characteristic mild odour	CONFORMS
Refractive Index	1.460 - 1.475 @ 20°C	1.466
Specific Gravity (g/mL)	0.910 - 0.920 @ 20°C	0.915
Saponification Value (mgKOH/g)	185 - 195	192
Peroxide Value (meqO ₂ /kg)	Less than 5.0	CONFORMS
Iodine Value (g I ₂ /100g)	84 - 115	100
Acid Value (mgKOH/g)	Less than 1.0	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	800 – 15.00	11.30
Palmitoleic Acid	C16:1 (n-7)	Maximum 3.00	1.60
Stearic Acid	C18:0	Maximum 3.00	1.40
Oleic Acid	C18:1 (n-9)	45.00 – 58.00	54.60
Linoleic Acid	C18:2 (n-6)	27.00 – 37.00	29.80
Alpha-Linolenic Acid	C18:3 (n-3)	Maximum 2.00	0.70

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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