

CERTIFICATE OF ANALYSIS (COA)

Product Name	PERILLA SEED OIL
Botanical Name	Perilla frutescens
CAS #	68132-21-8
EINECS #	268-884-2
INCI Name	Perilla Frutescens 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 yellow colored liquid	CONFORMS
Odour	Characteristic faint sweet, nutty odour	CONFORMS
Refractive Index	1.460 - 1.485 @ 20°C	1.470
Specific Gravity (g/mL)	0.920 - 0.937 @ 20°C	0.926
Saponification Value (mgKOH/g)	135 - 195	157
Peroxide Value (meqO ₂ /kg)	Less than 5.0	CONFORMS
Iodine Value (g I ₂ /100g)	175 - 208	188
Acid Value (mgKOH/g)	Less than 2.0	0.42
Free Fatty Acids (% oleic)	Less than 1.0	0.21
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	4.00 – 10.00	5.30
Stearic Acid	C18:0	1.00 – 4.00	1.10
Oleic Acid	C18:1 (n-9)	10.00 – 18.00	13.60
Linoleic Acid	C18:2 (n-6)	12.00 – 20.00	18.30
Alpha-Linolenic Acid	C18:3 (n-3)	54.00 – 64.00	59.90
Gamma-Linolenic Acid	C18:3 (n-6)	Maximum 1.00	0.60
Arachidic Acid	C20:0	Maximum 1.00	0.30

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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