

CERTIFICATE OF ANALYSIS (COA)

Product Name	FENUGREEK OIL
Botanical Name	Trigonella foenum-graecum
CAS #	84625-40-1 ; 68990-15-8
EINECS #	283-415-1
INCI Name	Trigonella Foenum-Graecum (Fenugreek) Seed Oil

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

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULTS</u>
Appearance	Amber to golden brown colored liquid	CONFORMS
Odour	Characteristic odour	CONFORMS
Refractive Index	1.454 - 1.490 @ 20°C	1.480
Specific Gravity (g/mL)	0.910 - 0.930 @ 30°C	0.933
Saponification Value (mgKOH/g)	180 - 200	191
Peroxide Value (meq O ₂ /kg)	Less than 5.0	CONFORMS
Iodine Value (g I ₂ /100g)	100 - 145	141
Free Fatty Acids (% oleic)	Less than 1.5	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	5.00 – 15.00	7.30
Stearic Acid	C18:0	3.00 – 8.00	4.30
Oleic Acid	C18:1 (n-9)	12.00 – 28.00	22.50
Linoleic Acid	C18:2 (n-6)	35.00 – 55.00	45.30
Alpha-Linolenic Acid	C18:3 (n-3)	12.00 – 30.00	18.90
Arachidic Acid	C20:0	Maximum 3.00	0.90

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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