

CERTIFICATE OF ANALYSIS (COA)

Product Name	RASPBERRY SEED OIL
Botanical Name	Rubus idaeus
CAS #	84929-76-0; 381718-28-1
EINECS #	284-554-0
INCI Name	Rubus Idaeus (Raspberry) Seed Oil

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

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULTS</u>
Appearance	Dark yellow colored liquid with a little green hue	CONFORMS
Odour	Characteristic mild fruity odour	CONFORMS
Refractive Index	1.470 - 1.482 @ 20°C	1.476
Specific Gravity (g/mL)	0.910 - 0.950 @ 25°C	0.935
Saponification Value (mgKOH/g)	170 - 210	188
Peroxide Value (meqO ₂ /kg)	Less than 10.0	CONFORMS
Iodine Value (g I ₂ /100g)	165 - 192	174
Free Fatty Acids (% oleic)	Less than 1.0	0.06
Acid Value (mgKOH/g)	Less than 2.0	0.12
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	2.00 - 5.00	2.20
Stearic Acid	C18:0	0.50 - 3.00	0.80
Oleic Acid	C18:1 (n-9)	7.00 - 15.00	10.80
Linoleic Acid	C18:2 (n-6)	48.00 - 62.00	55.40
Alpha-Linolenic Acid	C18:3 (n-3)	28.00 - 36.00	30.10

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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