

CERTIFICATE OF ANALYSIS (COA)

Product Name	ROSELLE HIBISCUS SEED OIL
Botanical Name	Hibiscus sabdariffa
CAS #	84775-96-2
EINECS #	283-920-7
INCI Name	Hibiscus Sabdariffa (Hibiscus) 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 colored liquid	CONFORMS
Odour	Mild, sweet nutty odour	CONFORMS
Refractive Index	1.460 - 1.480 @ 20°C	1.4672
Specific Gravity (g/mL)	0.913 - 0.920 @ 20°C	0.916
Saponification Value (mgKOH/g)	188 - 200	187
Iodine Value (g I ₂ /100g)	95 – 104	110
Peroxide Value (meq O ₂ /kg)	Less than 10.0	CONFORMS
Acid Value (mgKOH/g)	Less than 2.0	0.15
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	16.00 – 22.00	21.5
Stearic Acid	C18:0	2.00 – 6.00	2.90
Oleic Acid	C18:1 (n-9)	26.00 – 39.00	38.40
Linoleic Acid	C18:2 (n-6)	35.00 – 54.00	34.40

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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