

CERTIFICATE OF ANALYSIS (COA)

Product Name	CLOUDBERRY SEED OIL
Botanical Name	Rubus chamaemorus
CAS #	-
EINECS #	-
INCI Name	Rubus Chamaemorus Seed Oil

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

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULT</u>
Appearance	Pale yellow to reddish golden colored liquid	CONFORMS
Odour	Characteristic mild nutty odour	CONFORMS
Refractive Index	1.450 - 1.480 @ 20°C	1.465
Specific Gravity (g/mL)	0.900 - 0.930 @ 20°C	0.918
Saponification Value (mgKOH/g)	170 - 205	CONFORMS
Peroxide Value (meq O ₂ /kg)	Less than 10.0	CONFORMS
Iodine Value (g I ₂ /100g)	150.-190	162
Acid Value (mgKOH/g)	Less than 2.0	CONFORMS
Solubility	Soluble in cosmetic esters and fixed oils; Insoluble in water	CONFORMS

FATTY ACID COMPOSITION:

<u>FATTY ACID</u>	<u>C-CHAIN</u>	<u>SPECIFICATIONS (%)</u>	<u>RESULTS</u>
Palmitic Acid	<u>C16:0</u>	<u>6.00 – 12.00</u>	<u>1.50</u>
Palmitoleic Acid	<u>C16:1 (n-7)</u>	<u>Maximum 1.0</u>	<u>0.20</u>
Stearic Acid	<u>C18:0</u>	<u>1.00 – 3.00</u>	<u>1.30</u>
Oleic Acid	<u>C18:1 (n-9)</u>	<u>12.00 – 22.00</u>	<u>18.20</u>
Linoleic Acid	<u>C18:2 (n-6)</u>	<u>40.00 – 48.00</u>	<u>44.40</u>
Arachidic Acid	<u>C20:0</u>	<u>30.00 – 38.00</u>	<u>0.60</u>

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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