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TECHNICAL DATA SHEET (TDS)

Product Name	MARULA OIL
Botanical Name	Sclerocarya birrea
Product Code	PCO4052
INCI Name	Sclerocarya Birrea (Marula) Seed Oil

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

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>
Appearance	Clear light yellow colored liquid
Odour	Characteristic mild nutty odour
Refractive Index	1.460 - 1.480 @ 20°C
Specific Gravity (g/mL)	0.905 - 0.930 @ 20°C
Saponification Value (mgKOH/g)	185 - 215
Peroxide Value (meq O₂/kg)	Less than 10.0
Iodine Value (g I₂/100g)	60 - 80
Acid Value (mgKOH/g)	Less than 5.0
Solubility	Soluble in cosmetic esters and fixed oils; Insoluble in water

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FATTY ACID COMPOSITION:

<u>FATTY ACID</u>	<u>C-CHAIN</u>	<u>SPECIFICATIONS (%)</u>	<u>RESULTS (%)</u>
Palmitic Acid	C16:0	9.00 – 12.00	10.10
Stearic Acid	C18:0	5.00 – 8.00	5.90
Oleic Acid	C18:1 (n-9)	70.00 – 78.00	74.70
Linoleic Acid	C18:2 (n-6)	4.00 – 7.00	6.90
Alpha-Linolenic Acid	C18:3 (n-3)	0.10 – 0.70	0.50
Arachidic Acid	C20:0	Maximum 1.00	0.30

<u>MICROBIAL ANALYSIS</u>	<u>SPECIFICATIONS</u>	<u>STANDARDS</u>
Aerobic Mesophilic Bacterial Count	< 100 CFU/g	ISO 21149
Yeast and Mould	< 10 CFU/g	ISO 16212
Candida albicans	ABSENT / 1g	ISO 18416
Escherichia coli	ABSENT / 1g	ISO 21150
Pseudomonas aeruginosa	ABSENT / 1g	ISO 22717
Staphylococcus aureus	ABSENT / 1g	ISO 22718

<u>HEAVY METAL TESTS</u>	<u>SPECIFICATIONS</u>	<u>STANDARDS</u>
Lead: Pb (mg/kg or ppm)	< 10 ppm	na
Arsenic: As (mg/kg or ppm)	< 2 ppm	na
Mercury: Hg (mg/kg or ppm)	< 1 ppm	na

STABILITY AND STORAGE:

Keep in tightly closed container in a cool and dry place, protected from sunlight. When stored for more than 24 months, quality should be checked before use.

As it is electronically generated document, hence no signature required.

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