

TECHNICAL DATA SHEET (TDS)

Product Name	SIBERIAN PINE NUT OIL
Botanical Name	Pinus sibirica
Product Code	PCO4137
INCI Name	Pinus Sibirica Seed Oil

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

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>
Appearance	Bright yellow to golden colored liquid
Odour	Fresh, softly nutty aroma
Refractive Index	1.460 - 1.480 @ 20°C
Specific Gravity (g/mL)	0.910 - 0.940 @ 20°C
Saponification Value (mgKOH/g)	190 - 250
Peroxide Value (meq O₂/kg)	Less than 5.0
Iodine Value (g I₂/100g)	130 - 170
Acid Value (mgKOH/g)	Less than 4.0
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>
Palmitic Acid	C16:0	3.50 – 10.00
Stearic Acid	C18:0	1.00 – 6.00
Oleic Acid	C18:1 (n-9)	20.00 – 35.00
Linoleic Acid	C18:2 (n-6)	40.00 – 66.00
Pinolenic Acid	C18:3	12.00 – 24.00

<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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