

TECHNICAL DATA SHEET (TDS)

Product Name	COCOA BEAN OIL
Botanical Name	Theobroma cacao
Product Code	PCO4146
CAS #	8002-31-1
INCI Name	Theobroma Cacao (Cocoa) Seed Oil

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

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>
Appearance	Pale yellow to golden colored liquid
Odour	Characteristic faint odour
Refractive Index	1.450 - 1.490 @ 20°C
Specific Gravity (g/mL)	0.890 - 0.930 @ 20°C
Saponification Value (mgKOH/g)	170 - 200
Peroxide Value (meq O₂/kg)	Less than 4.0
Iodine Value (g I₂/100g)	30 - 85
Free Fatty Acids (% oleic)	Less than 1.5
Moisture (%)	Less than 0.1%
Solubility	Soluble in Cosmetic esters and fixed oils; Insoluble in water

FATTY ACID COMPOSITION:

<u>FATTY ACID</u>	<u>C-CHAIN</u>	<u>SPECIFICATIONS (%)</u>
Palmitic Acid	C16:0	5.00 – 12.00
Stearic Acid	C18:0	6.00 – 16.00
Oleic Acid	C18:1 (n-9)	66.00 – 78.00
Linoleic Acid	C18:2 (n-6)	5.00 – 14.00

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<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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