

TECHNICAL DATA SHEET (TDS)

Product Name	ENGELMANN SPRUCE ESSENTIAL OIL
Botanical Name	Picea engelmannii
INCI Name	Picea Engelmannii (Engelmann Spruce) Oil

Part Used	Needles
Extraction Method	Steam Distilled Essential Oil
Quality	100% Pure and Natural
Note Classification	Middle to Top Note

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>
Appearance	Colorless to pale yellow colored liquid
Odour	Sweet, piney aroma with citrus lime undertones
Refractive Index	1.455 - 1.490 @ 20°C
Specific Gravity (g/mL)	0.890 - 0.930 @ 25°C
Solubility	Soluble in alcohols and fixed oils; Insoluble in water

<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

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