

TECHNICAL DATA SHEET (TDS)

Product Name	DOUGLAS FIR NEEDLE ESSENTIAL OIL
Botanical Name	Pseudotsuga menziesii
CAS #	8050-89-3 ; 91771-64-1 ; 97926-19-7
EINECS #	294-957-3 ; 308-234-8
INCI Name	Pseudotsuga Menziesii (Douglas Fir) Oil

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

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>
Appearance	Colorless to pale yellow green colored liquid
Odour	Rich, soft, woody-balsamic, sweet Pine needle-like aroma
Refractive Index	1.470 - 1.480 @ 20°C
Specific Gravity (g/mL)	0.860 - 0.869 @ 20°C
Optical Rotation (°)	-30° to -4°
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

Disclaimer & Caution: Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. INDO BIO ORGANICS provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the product, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of INDO BIO ORGANICS, no representation or warranty - expressed or implied - is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of INDO BIO ORGANICS is limited to the value of the goods and does not include any consequential loss. INDO BIO ORGANICS shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. INDO BIO ORGANICS shall not be responsible for any damages resulting from the use of or reliance upon this information.

INDO BIO ORGANICS

A-004, New Highway Park E-3 CHSL, Kandivali (E), Mumbai 400 101.

Tel: +91 2870 1974 | 750689 1975 | Email: essentialoilsofindia@gmail.com | www.essentialoilsofindia.com