

**CERTIFICATE OF ANALYSIS (COA)**

<b>Product Name</b>	<b>BLACK SPRUCE ESSENTIAL OIL</b>
<b>Botanical Name</b>	Picea mariana
<b>CAS #</b>	8008-80-8 ; 91722-19-9
<b>EINECS #</b>	3034
<b>INCI Name</b>	Picea Mariana (Black Spruce) Oil

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

<b><u>PROPERTIES</u></b>	<b><u>SPECIFICATIONS</u></b>	<b><u>RESULTS</u></b>
<b>Appearance</b>	Colorless to pale yellow liquid	CONFORMS
<b>Odour</b>	Fresh, penetrating, pine forest-like aroma with balsamic, woody undertones	CONFORMS
<b>Refractive Index</b>	1.466 - 1.472 @ 20°C	1.468
<b>Specific Gravity (g/mL)</b>	0.900 - 0.930 @ 20°C	0.920
<b>Optical Rotation (°)</b>	-20° to +4°	CONFORMS
<b>Solubility</b>	Soluble in alcohols and fixed oils; Insoluble in water	CONFORMS

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

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

**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