

TECHNICAL DATA SHEET (TDS)

Product Name	BALSAM FIR ESSENTIAL OIL		
Botanical Name	Abies balsamea		
CAS #	8021-28-1; 85085-34-3		
EINECS #	285-364-0		
INCI Name	Abies Balsamea Needle Oil		

PROPERTIES	<u>SPECIFICATIONS</u>	
Appearance	Colorless to pale yellow transparent liquid	
Odour	Rich, deep balsamic, evergreen aroma of freshly crushed fir needles	
Refractive Index	1.470 - 1.480 @ 20°C	
Specific Gravity (g/mL)	0.867 - 0.878 @ 25°C	
Optical Rotation (°)	-11° to -7°	
Solubility	Soluble in alcohols and fixed oils; Insoluble in water	

MICROBIAL ANALYSIS	SPECIFICATIONS	STANDARDS
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

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

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