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TROPICAL BIOESSENCE SDN. BHD.

CERTIFICATE OF ANALYSIS

Product : Sandalwood Essential oil
Botanical name : Santalun album Wood Oil (Origin India)
Product Code : PCEO 01
Mfg Date : May 2025 Exp Date : May 2028 Batch no: 052536B
Method : Steam Distillation

TEST	RESULT	STANDARD
Appearance	Pale Yellow to Amber Coloured	Confirm
Odour	Characteristic	Confirm
Refractive index (25°C)	1.508	1.503 - 1.509
Specific gravity (25°C)	0.973	0.968 - 0.983
Optical Rotation	-162.0°	-21.0° - -12.0°
Solubility	Complies	Soluble in Alcohol
Heavy Metals Content		
Arsenic (mg/kg)	N.D (<0.1ppm)	BP 2013, Appendix IID, ICP-AES
Lead (mg/kg)	N.D (<0.5ppm)	BP 2013, Appendix IID, ICP-AES
Cadmium (mg/kg)	N.D (<0.1ppm)	BP 2013, Appendix IID, ICP-AES
Mercury (mg/kg)	N.D (<0.1ppm)	BP 2013, Appendix IID, ICP-AES
Microbial Content		
<i>Pseudomonas aeruginosa</i>	Absent in 1g	BP 2013, Appendix XVIB, 1
<i>Staphylococcus aureus</i>	Absent in 1g	BP 2013, Appendix XVIB, 1
<i>Total Combined Yeast and Mould</i>	ND(<10) CFU/g	BP 2013, Appendix XVIB, 2
<i>Total Aerobic Microbial Count</i>	ND(<10) CFU/g	BP 2013, Appendix XVIB, 2
Assay by GC		
(Z)- α -Santalol	40.00%	35.0 - 45.0%
(Z)- β -Santalol	18.40%	8.0 - 22.0%
(Z)- α -Trans-Bergamotol	6.50%	4.0 - 12.0%
(Z)-epi- β -Santalol	3.20%	1.0 - 5.0%
(E)- α -Santalal	2.70%	2.0 - 7.0%

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