



TROPICAL BIOESSENCE SDN. BHD.

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CERTIFICATE OF ANALYSIS

Product	: Rosemary Essential oil				
Botanical name	: Rosemarinus officinalis Leaf Oil (Origin Tunisia)				
Product Code	: RSME0 01				
Mfg Date	: May 2025	Exp Date	: May 2028	Batch no:	052526B
Method	: Steam Distillation				

TEST	RESULT	STANDARD
Appearance	Colourless to Yellow	Confirm
Odour	Minty and champorous	Confirm
Refractive index (25°C)	1.710	1.464 - 1.473
Specific gravity (25°C)	0.901	0.895 - 0.920
Optical Rotation	+3.9°	-5.0° - +8.0°
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		
Alpha Pinene	12.10%	9.0 - 14.0%
Camphene	3.40%	2.5 - 6.0%
Beta Pinene	6.90%	4 - 9.0%
Myrcene	1.30%	1.0 - 2.0%
Limonene	3.20%	1.5 - 4.0%
Cineol	39.60%	38.0 -55.0%
Para Cymene	1.80%	0.8 -2.5%
Camphor	6.80%	5.0 -15.00%
Bornyl Acetat	0.90%	0.1 - 1.5%
Terpineol	1.60%	1-2.6%
Borneol	3.20%	1.5-5%

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