



CERTIFICATE OF ANALYSIS

IDENTIFICATION

Lot/Batch Number	B219
Product Name	Tea Tree Oil
Botanical Name	Melaleuca Alternifolia
Extraction Method	Steam Distilled
Plant Part	Leaves and terminal twigs of Melaleuca Alternifolia
Country of Origin	South Africa
Manufacturing Date	February 2023
Expiry Date	February 2026
EC - No	285-377-1
CAS-No EU	85085-48-9
CAS-No US	68647-73-4
FEMA No	3902

PHYSIO-CHEMICAL PROPERTIES

Physical and Chemical Properties	Requirement *	Results
Appearance	Clear, Mobile Liquid	Conforms
Colour	Colourless to Pale Yellow Liquid	Conforms
Odour	Characteristic Aroma – Fresh, Terpene, Woody	Conforms
Relative Density (Specific Gravity)	0.885 – 0.906 g/ml (@20°C)	0.898g/ml
Refractive Index	1.475 – 1.482 (@20°C)	1.477
Optical Rotation (°)	+7 ° to +15 °	+ 13.95°
Flash Point (°C) (Closed Cup)	55 °C	
Solubility in Water	Insoluble	
Solubility in Alcohol	Soluble	

* ISO 4730:2017 – Essential oil of melaleuca, terpinen-4-ol type (Tea Tree oil)



CHROMATOGRAPHIC ANALYSIS BY GC/FID

Components	Requirement (%) **	Results (area %)
alpha-pinene	1.0 to 4.0	3,01%
sabinene	traces* to 3.5	0,36%
alpha-terpinene	6.0 to 12.0	9,51%
limonene	0.5 to 1.5	0,76%
para-cymene	0.5 to 8	2,83%
1,8-cineole (syn. eucalyptol)	traces* to 10	2,38%
gamma-terpinene	14.0 to 28.0	24,58%
terpinolene	1.5 to 5.0	2,84%
terpinen-4-ol	35.0 to 48.0	40,52%
alpha-terpineol	2.0 to 5.0	3,02%
aromadendrene	0.2 to 3.0	0,36%
ledene (syn. viridiflorene)	0.1 to 3.0	0,46%
delta-cadinene	0.2 to 3.0	0,58%
globulol	traces* to 1.0	0,18%
viridiflorol	traces* to 1.0	0,18%

* traces: <0.01 %

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HANDLING, STORAGE AND SHELF LIFE

Handling Precaution	Handle in adequate ventilation, avoid skin and eye contact, use goggles, or face shield and wear protective clothing.
Packing and Storage	Store at ambient temperature, dry and well-ventilated area, away from heat source and protected from light. Store in tightly sealed original containers.
Shelf Life	36 months under recommended storage conditions.
Stability	Avoid strong acids strong bases and all oxidising agents.
Uses	Fragrances, Cosmetics, Flavours

Disclaimer: The information contained herein is, to our knowledge true and correct and presented in good faith. Users should conduct their own tests to determine the suitability of the product to their own specific purposes.