



TECHNICAL DATA SHEET

Item Code: CTT001

Last Update: 27 May 2022

Item Name: TEA TREE OIL

Version: 002

IDENTIFICATION

CAS # EU	85085-48-9
CAS # US	68647-73-4
FEMA #	3902
EC #	285-377-1
INCI Name	Melaleuca Alternifolia Leaf Oil
Botanical Name	Melaleuca Alternifolia
Processing Method	Essential oil obtained by steam distillation from foliage and terminal branches of Melaleuca Alternifolia
Cultivation Method	Conventional
Extraction Method	Steam Distilled
Plant Part	Leaves and terminal twigs of Melaleuca Alternifolia
Origin	South Africa

PHYSIO-CHEMICAL PROPERTIES

Characteristics	Requirement *
Appearance	Clear, mobile liquid
Colour	Colourless to pale liquid
Odour	Characteristic Aroma – Fresh, Terpene, Woody
Relative Density	0.885 – 0.906 g/ml (@20°C)
Refractive Index	1.475 – 1.482 (@20°C)
Optical Rotation (°)	+7 ° to +15 °
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)



MAIN COMPONENTS BY GLC (GAS-LIQUID CHROMATOGRAPHY)

Components	Requirement (%) **
alpha-pinene	1.0 to 4.0
sabinene	traces* to 3.5
alpha-terpinene	6.0 to 12.0
limonene	0.5 to 1.5
para-cymene	0.5 to 8
1,8-cineole (syn. eucalyptol)	traces* to 10
gamma-terpinene	14.0 to 28.0
terpinolene	1.5 to 5.0
terpinen-4-ol	35.0 to 48.0
alpha-terpineol	2.0 to 5.0
aromadendrene	0.2 to 3.0
ledene (syn. viridiflorene)	0.1 to 3.0
delta-cadinene	0.2 to 3.0
globulol	traces* to 1.0
viridiflorol	traces* to 1.0

* traces: <0.01 %

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

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

Disclaimer: The information contained herein is, to our knowledge true and correct and presented in good faith.