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**Certificate of Analysis**                      **COA-5099-001-01**  
**Sample Code**                                      **5099-001**

<b>Received</b>	2023-11-30
<b>Concluded</b>	2023-12-05

<b>Client Reference</b>	Tea Tree Oil (B219)
<b>Sample Description</b>	Essential oil – Tea Tree Oil
<b>Submitted Weight (g)</b>	78.9

<b>Services Requested</b>	C-15    Essential Oil analysis
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## Results of Test, Examination or Analysis

C-15      Essential Oil analysis						
Conducted		2023-12-01				
<b>Composition Result</b>						
Component	Total Measured *	ISO 4730			Remark	
		min. %	max. %	Measured **		
1	α-Thujene	1.26				
2	α-Pinene	3.01	1.0	4.0	3.29	Conforms
3	Sabinene	0.36	trace	3.5	0.39	Conforms
4	β-Pinene	0.83				
5	β-Myrcene	1.02				
6	α-Phellandrene	0.68				
7	α-Terpinene	9.51	6.0	12.0	10.39	Conforms
8	p-Cymene	2.83	0.5	8.0	3.09	Conforms
9	Limonene	0.76	0.5	1.5	0.83	Conforms
10	β-Phellandrene	1.26				
11	1,8-Cineole	2.38	trace	10.0	2.60	Conforms
12	γ-Terpinene	24.58	14.0	28.0	26.85	Conforms
13	Terpinolene	2.84	1.5	5.0	3.10	Conforms
14	cis-β-Terpeneol	0.15				
15	trans-p-Menth-2-en-1-ol	0.27				
16	cis-p-Menth-2-en-1-ol	0.20				
17	Terpinen-4-ol	40.52	35.0	48.0	44.27	Conforms
18	α-Terpeneol	3.02	2.0	5.0	3.3	Conforms
19	trans-Piperitol	0.19				
20	trans-Ascaridol glycol	0.11				
21	Copaene	0.12				
22	α-Gurjunene	0.15				
23	Caryophyllene	0.15				
24	alpha-Panasinsanene	0.03				
25	Aromadendrene	0.36	0.2	3.0	0.39	Conforms
26	Selina-5,11-diene	0.06				
27	α-Cubebene	0.11				
28	Humulene	0.10				
29	Alloaromadendrene	0.16				
30	β-Cadinene	0.27				
31	beta-Maaliene	0.06				
32	Ledene	0.46	0.1	3.0	0.50	Conforms
33	Bicyclogermacrene	0.50				
34	δ-Cadinene	0.58	0.2	3.0	0.63	Conforms
35	Zonarene	0.18				
36	Cubenene	0.19				
37	Epiglobulol	0.05				
38	Maaliol	0.02				
39	Spathulenol	0.02				
40	Globulol	0.18	trace	1.0	0.20	Conforms
41	Viridiflorol	0.18	trace	1.0	0.19	Conforms
42	Rosifoliol	0.08				
43	Cubenol	0.18				
44	Epicubebol	0.07				

\* Normative profile of measured components (GC-MS)  
\*\* Normative profile of subset of components, characteristic of Tea Tree Essential Oil as outlined in ISO 4730, Oil of *Melaleuca*, terpinene-4-ol type (Tea tree oil).  
Subsequent interpretation of the submitted samples character is done in reference to the typical profiles as stipulated by the ISO standard.


**Disclaimer**

This test only reports on the fractional composition of the oil tested and holds it in comparison with the appropriate ISO standard for an essential oil of the client specified botanical. No claims are made in regard to the quality of the sample submitted.

**Test Site**

4 Shortts Retreat RD; Pietermaritzburg; South Africa

**Compiled by:**  
Mr Waldo Lexow  
*Scientist*



**Authorised by:**  
Ms Y Chonnoolal  
*Laboratory Manager*



-End of Report-