



## CERTIFICATE OF ANALYSIS

<b>Type</b>	Essential Oil
<b>Latin Name</b>	Melaleuca alternifolia
<b>Country of Origin</b>	Australia
<b>Extraction Method</b>	Steam distilled
<b>Plant Part</b>	Leaves
<b>Typical Use</b>	Aromatherapy
<b>SKU</b>	OB.SN.TEA.21.01

<b>Analysis Method</b>	GC-MS
<b>Manufacture Date</b>	December 2019
<b>Test Date</b>	June 10, 2020
<b>Retailer</b>	Okapi Bay

<b>Physical Properties</b>	Liquid
<b>Refractive Index @ 20 °C</b>	1.4777 ± 0.0003
<b>Specific Gravity @ 20 °C</b>	0.89
<b>Color</b>	Clear to pale yellow/green
<b>Odor</b>	Typical characteristics

### Conclusion:

No adulterant or diluent has been detected using this method. The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise.

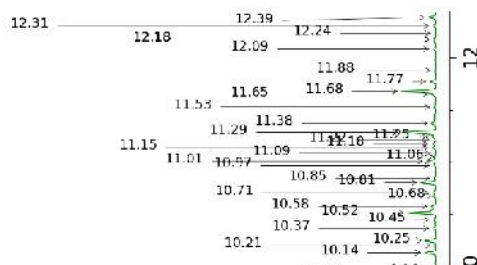
GC CONSOLIDATED RESULTS

Component	%	CLASS
Ethanol	0.12	Aliphatic alcohol
Isobutyral	0.03	Aliphatic aldehyde
Ethyl acetate	0.01	Aliphatic ester
Isobutanol	tr	Aliphatic alcohol
Isovaleral	tr	Aliphatic aldehyde
2-Methylbutyral	0.02	Aliphatic aldehyde
Isoamyl alcohol	tr	Aliphatic alcohol
2-Methylbutanol	tr	Aliphatic alcohol
(3Z)-Hexenol	0.03	Aliphatic alcohol
Hexanol	0.01	Aliphatic alcohol
$\alpha$ -Thujene	0.85	Monoterpene
$\alpha$ -Pinene	2.40	Monoterpene
Camphene	0.01	Monoterpene
$\alpha$ -Fenchene	tr	Monoterpene
$\beta$ -Pinene	0.70	Monoterpene
Sabinene	0.10	Monoterpene
3-Methyl-3-cyclohexenone	0.01	Aliphatic ketone
Myrcene	0.80	Monoterpene
Pseudolimonene	0.01	Monoterpene
$\alpha$ -Phellandrene	0.44	Monoterpene
(3Z)-Hexenyl acetate	0.01	Aliphatic ester
$\alpha$ -Terpinene	9.12	Monoterpene
Carvomenthene	0.01	Aliphatic alcohol
para-Cymene	2.56	Monoterpene
Limonene	0.83	Monoterpene
1,8-Cineole	2.28	Monoterpenic ether
$\beta$ -Phellandrene	0.76	Monoterpene
(Z)- $\beta$ -Ocimene	tr	Monoterpene
(E)- $\beta$ -Ocimene	0.02	Monoterpene
$\gamma$ -Terpinene	20.10	Monoterpene
cis-Sabinene hydrate	0.04	Monoterpenic alcohol
Terpinolene	3.26	Monoterpene
para-Cymenene	0.06	Monoterpene
trans-Sabinene hydrate	0.03	Monoterpenic alcohol
Linalool	0.06	Monoterpenic alcohol
Unknown	tr	Monoterpenic alcohol
endo-Fenchol	0.02	Monoterpenic alcohol
cis-para-Menth-2-en-1-ol	0.18	Monoterpenic alcohol
4-Hydroxy-4-methylcyclohex-2-enone	0.02	Aliphatic alcohol
Cosmene isomer I	0.02	Monoterpene
trans-para-Menth-2-en-1-ol	0.10	Monoterpenic alcohol
Camphene hydrate	0.01	Monoterpenic alcohol
Unknown	0.03	Unknown

<b>δ-Terpineol</b>	0.01	Monoterpenic alcohol
<b>Terpinen-4-ol</b>	42.59	Monoterpenic alcohol
<b>Dill ether</b>	0.01	Monoterpenic ether
<b>para-Cymen-8-ol</b>	0.09	Monoterpenic alcohol
<b>α-Terpineol</b>	2.95	Monoterpenic alcohol
<b>cis-Piperitol</b>	0.05	Monoterpenic alcohol
<b>trans-Piperitol</b>	0.12	Monoterpenic alcohol
<b>endo-Fenchyl acetate</b>	0.01	Monoterpenic ester
<b>exo-2-Hydroxycineole</b>	0.02	Monoterpenic alcohol
<b>Nerol</b>	0.02	Monoterpenic alcohol
<b>Unknown</b>	0.02	Oxygenated monoterpene
<b>Piperitone</b>	0.04	Monoterpenic ketone
<b>cis-Carvenone oxide?</b>	0.01	Monoterpenic ketone
<b>trans-Ascaridole glycol</b>	0.05	Monoterpenic alcohol
<b>cis-Ascaridole glycol</b>	0.05	Monoterpenic alcohol
<b>Thymol</b>	0.02	Monoterpenic alcohol
<b>Carvacrol</b>	0.02	Monoterpenic alcohol
<b>Unknown</b>	0.05	Monoterpenic alcohol
<b>Bicycloelemene</b>	0.01	Sesquiterpene
<b>α-Cubebene</b>	0.06	Sesquiterpene
<b>Isolodene</b>	0.06	Sesquiterpene
<b>α-Copaene</b>	0.10	Sesquiterpene
<b>7-Cubebene</b>	0.05	Sesquiterpene
<b>7-Cubebene epimer?</b>	0.02	Aliphatic alcohol
<b>β-Cubebene</b>	0.02	Sesquiterpene
<b>β-Elemene</b>	0.02	Sesquiterpene
<b>Unknown</b>	0.02	Sesquiterpene
<b>α-Gurjunene</b>	0.31	Sesquiterpene
<b>Methyleugenol</b>	0.03	Phenylpropanoid
<b>β-Maaliene</b>	0.02	Sesquiterpene
<b>β-Caryophyllene</b>	0.32	Sesquiterpene
<b>γ-Maaliene</b>	0.07	Sesquiterpene
<b>α-Maaliene</b>	0.07	Sesquiterpene
<b>Aromadendrene</b>	1.03	Sesquiterpene
<b>Selina-5,11-diene</b>	0.13	Sesquiterpene
<b>trans-Muurolo-3,5-diene</b>	0.10	Sesquiterpene
<b>α-Humulene</b>	0.08	Sesquiterpene
<b>allo-Aromadendrene</b>	0.46	Sesquiterpene
<b>Valerena-4,7(11)-diene</b>	0.04	Sesquiterpene
<b>γ-Gurjunene</b>	0.05	Sesquiterpene
<b>trans-Cadina-1(6),4-diene</b>	0.28	Sesquiterpene
<b>Selina-4,11-diene</b>	0.03	Sesquiterpene
<b>γ-Muuroloene</b>	0.01	Sesquiterpene
<b>Germacrene D</b>	0.01	Sesquiterpene
<b>β-Selinene</b>	0.09	Sesquiterpene
<b>allo-Aromadendr-9-ene</b>	0.09	Sesquiterpene
<b>trans-Muurolo-4(15),5-diene</b>	0.06	Sesquiterpene
<b>δ-Selinene</b>	0.10	Sesquiterpene
<b>α-Selinene</b>	0.10	Sesquiterpene
<b>Bicyclgermacrene</b>	0.41	Sesquiterpene
<b>Viridiflorene</b>	0.86	Sesquiterpene
<b>Epizonarene</b>	0.01	Sesquiterpene
<b>α-Muuroloene</b>	0.14	Sesquiterpene
<b>γ-Cadinene</b>	0.04	Sesquiterpene

<b>trans-Calamenene</b>	0.10	Sesquiterpene
<b>δ-Cadinene</b>	0.95	Sesquiterpene
<b>Zonarene</b>	0.22	Sesquiterpene
<b>trans-Cadina-1,4-diene</b>	0.16	Sesquiterpene
<b>α-Calacorene</b>	0.02	Sesquiterpene
<b>Epiglobulol</b>	0.06	Sesquiterpenic alcohol
<b>Eudesma-5,7(11)-diene</b>	0.01	Sesquiterpene
<b>Maaliol</b>	0.03	Sesquiterpenic alcohol
<b>Unknown</b>	0.01	Oxygenated sesquiterpene
<b>Palustrol</b>	0.05	Sesquiterpenic alcohol
<b>Unknown</b>	0.01	Oxygenated sesquiterpene
<b>Spathulenol</b>	0.07	Sesquiterpenic alcohol
<b>Globulol</b>	0.24	Sesquiterpenic alcohol
<b>Gleenol</b>	0.02	Sesquiterpenic alcohol
<b>Viridiflorol</b>	0.13	Sesquiterpenic alcohol
<b>Cubeban-11-ol</b>	0.10	Sesquiterpenic alcohol
<b>Ledol</b>	0.04	Sesquiterpenic alcohol
<b>Eudesm-5-en-11-ol analog</b>	0.07	Sesquiterpenic alcohol
<b>Eudesm-5-en-11-ol</b>	0.01	Sesquiterpenic alcohol
<b>10-epi-Cubenol</b>	0.01	Sesquiterpenic alcohol
<b>Rosifoliol</b>	0.10	Sesquiterpenic alcohol
<b>1-epi-Cubenol</b>	0.14	Sesquiterpenic alcohol
<b>Isospathulenol</b>	0.05	Sesquiterpenic alcohol
<b>Cubenol</b>	0.08	Sesquiterpenic alcohol
<b>α-Muurolol</b>	0.03	Sesquiterpenic alcohol
<b>α-Cadinol</b>	0.01	Sesquiterpenic alcohol
<b>TOTAL</b>	<b>99.21%</b>	

MS RESULTS SUMMARY



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