

Certificate of Analysis

Analysed essential oil : **Manuka**

Analysis date : March, 4th 2015

Batch : 061SL506

Shelf life : September 2017

❖ General description

Essential oil	Manuka	Origin	New-Zealand
Latin name	<i>Leptospermum scoparium</i>		

❖ Organoleptic characteristics

Appearance	Clear and mobile liquid
Colour	Light yellow
Odour	Characteristic

❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	0.968	0.950	<	d	<	0.975
Refractive index	1.4996	1.4960	<	IR	<	1.5060
Optical rotation	-31.20°	-40°	<	$[\alpha]^{20}_d$	<	-20°

❖ Volatile elucidation

GC : Perkin Elmer – Clarus 500

Column : Elite - 1, 30 m, Ø 0.25 mm, 0.25 µm df

Injection : split

Detector : FID

Carrier gas : H₂

⇒ See Chromatogram : non-polar column

Date : 2015-03-04

Software Version : 6.2.0.0.0:B27
Sample Name : Manuka
Instrument Name : CLARUS 500
Rack/Vial : 0/5
Sample Amount : 1.000000
Cycle : 5

Date : 04/03/2015 10:08:42
Data Acquisition Time : 03/03/2015 22:38:37
Channel : A
Operator : Davenne
Dilution Factor : 1.000000

Result File :
Sequence File : C:\Sequences\CPG\2015\150303.seq

Rapport d'analyse

colonne apolaire

Pic #	Component Name	TR [min]	Area [%]
1		9.80	0.03
2	pinene <alpha>	10.06	1.63
3	pinene <beta>	11.65	0.12
4	myrcene	12.26	0.23
5		12.51	0.04
6	cymene <p>	13.46	0.17
7	phellandrene <beta>	13.78	0.18
8	limonene	13.87	0.09
9		14.69	0.03
10	terpinene <gama>	15.14	0.16
11	terpinolene	16.47	0.05
12	linalool	16.77	0.08
13		17.07	0.09
14		17.21	0.04
15		17.48	0.18
16		18.87	0.04
17		20.16	0.05
18		20.66	0.06
19		20.92	0.07
20		21.20	0.05
21		22.98	0.06
22		24.44	0.06
23		27.74	0.04
24	cubebene <alpha>	28.32	4.06
25		28.89	0.02
26		29.18	0.36
27	copaene <alpha>	29.40	4.64
28	elemene <beta>	29.92	1.01
29	gurjunene <alpha>	30.77	1.02
30	caryophyllene <(E)>	31.05	2.93
31		31.25	0.06
32		31.44	0.10
33		31.63	0.15
34	aromadendrene	31.86	1.83
35		31.97	0.32
36	muurola-3,5-diene <trans>	32.22	6.21
37	humulene <alpha>	32.37	0.48
38	aromadendrene <allo>	32.66	0.67
39	cadina-1(6),4-diene <cis>	33.17	3.50
40	muurolene <gamma>	33.26	1.43
41	germacrene D	33.40	0.41
42	selinene <beta>	33.62	3.90
43	amorphene <gamma>	33.78	1.46
44		33.90	0.21
45	selinene <alpha>	34.02	4.43
46	muurolene <alpha>	34.18	0.74
47		34.33	0.13
48	farnesene <(E,E)-alpha>	34.48	0.93
49	cadinene <gamma>	34.65	0.70
50	calamenene <trans>	34.84	13.36
51	cadinene <delta>	35.05	5.67
52	cadina-1,4-diene <trans>	35.38	9.35
53	calacorene <alpha>	35.50	0.42
54		35.73	0.03
55		36.24	0.16
56		36.38	0.26
57		36.62	0.05
58		36.75	0.56

04/03/2015 10:08:42 Result:

Pic #	Component Name	TR [min]	Area [%]
59	caryophyllene oxide	36.95	0.38
60		37.16	0.47
61		37.39	0.17
62		37.50	0.11
63		37.84	0.31
64		38.12	0.10
65	leptospermone <iso>	38.27	4.50
66	leptospermone	38.57	15.05
67	cubenol <1-epi>	38.76	0.87
68		38.97	0.20
69		39.13	0.18
70	cubenol	39.31	0.85
71		39.50	0.19
72		39.86	0.24
73		40.14	0.17
74		40.33	0.20
75		40.45	0.10
76		41.63	0.24
77		41.99	0.07
78		43.96	0.12
79		44.26	0.04
80		44.52	0.08
81		55.66	0.23
			100.00

Chromatogram

Sample Name : Manuka Sample #: 061SL506 Page 1 of 1
FileName : C:\Data\Colonne Apolaire\Huiles Essentielles\Manuka\2015\manuka 150303.raw
Date : 04/03/2015 10:08:45 Time of Injection: 03/03/2015 22:38:37
Method : Manuka.mth Start Time : 0.00 min End Time : 82.00 min Low Point : -47.17 mV High Point : 993.88 mV
Plot Offset: -47.17 mV Plot Scale: 1041.0 mV

