

Certificate of Analysis

Analysed essential oil : **Incense**

Analysis date : February, 09th 2016

Batch : 018QB704

Shelf life : February 2019

❖ General description

Essential oil	Incense	Origin	Somalie
Latin name	<i>Boswellia carterii</i>		

❖ Organoleptic characteristics

Appearance	Clear and mobile liquid
Colour	Pale yellow
Odour	Characteristic

❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	0.871	0.860	<	d	<	0.892
Refractive index	1.4730	1.4690	<	IR	<	1.4820
Optical rotation	-9.85°	-20°	<	$[\alpha]^{20}_D$	<	0°
Peroxyd Index	13,5 mmol/L	0 mmol/L	<	IP	<	20 mmol/L

❖ 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 : 2016-02-09

Software Version : 6.2.0.0.0:B27
Sample Name : Encens
Instrument Name : CLARUS 500
Rack/Vial : 0/8
Sample Amount : 1.000000
Cycle : 8

Date : 10/02/2016 14:30:41
Data Acquisition Time : 05/02/2016 04:04:34
Channel : A
Operator : Davenne
Dilution Factor : 1.000000

Result File :
Sequence File : C:\Sequences\CPG\2016\160204.seq

Rapport d'analyse

colonne apolaire

Pic #	Component Name	TR [min]	Area [%]
1		4.63	0.05
2		6.52	0.01
3		9.21	0.10
4		9.40	0.04
5	thujene <alpha>	9.59	10.73
6	pinene <alpha>	9.87	35.00
7	verbenene	10.08	0.50
8	camphene	10.31	0.57
9	thuja-2,4(10)-diene	10.46	0.16
10		11.06	0.04
11	sabinene	11.26	5.24
12	pinene <beta>	11.40	2.26
13		11.67	0.05
14		11.81	0.03
15	myrcene	12.02	3.97
16		12.26	0.06
17	phellandrene <alpha>	12.53	1.92
18	carene <delta-3>	12.87	0.82
19	terpinene <alpha>	13.07	0.32
20	cymene <p>	13.21	3.66
21		13.31	0.13
22		13.41	0.04
23	cineole <1.8> + phellandrene <	13.52	0.63
24	limonene	13.64	13.49
25	ocimene <(Z)-beta>	13.96	0.12
26		14.19	0.06
27	ocimene <(E)-beta>	14.43	0.05
28	terpinene <gamma>	14.87	0.47
29		15.02	0.03
30		15.20	0.07
31		15.61	0.04
32		15.74	0.02
33		15.95	0.08
34		16.08	0.01
35	terpinolene	16.19	0.11
36		16.33	0.04
37	linalool	16.48	0.09
38	thujone <cis>	16.61	0.10
39		16.78	0.03
40	thujone <trans>	16.95	0.21
41		17.28	0.18
42		17.40	0.06
43		17.69	0.01
44		17.86	0.02
45	pinocarveol <trans>	18.10	0.32
46		18.22	0.08
47		18.38	0.44
48		18.64	0.01
49		18.72	0.01
50		18.91	0.02
51		19.02	0.02
52		19.18	0.30
53	borneol	19.31	0.19
54		19.60	0.02
55		19.73	0.03
56	terpinen-4-ol	19.85	0.66
57		20.20	0.11
58	terpineol <alpha>	20.35	0.23

10/02/2016 14:30:41 Result:

Pic #	Component Name	TR [min]	Area [%]
59		20.54	0.06
60	verbenone	20.67	0.32
61		20.77	0.16
62		21.53	0.27
63		22.05	0.02
64		22.28	0.12
65		22.49	0.05
66		22.59	0.03
67		22.74	0.02
68		22.91	0.01
69		23.03	0.04
70		23.37	0.04
71		23.71	0.03
72		23.88	0.02
73		24.11	0.02
74		24.47	0.02
75	bornyl acetate	24.65	0.27
76		24.89	0.02
77		25.03	0.02
78		25.22	0.06
79		26.26	0.02
80		27.41	0.06
81		27.99	0.21
82		28.66	0.05
83		28.88	0.02
84	copaene <alpha>	29.07	0.66
85	bourbonene <beta>	29.36	0.17
86	elemene <beta>	29.62	0.73
87		29.82	0.02
88		30.22	0.02
89		30.46	0.09
90	caryophyllene <(E)>	30.73	3.33
91		31.12	0.07
92		31.28	0.01
93		31.50	0.11
94		31.68	0.04
95		31.88	0.09
96	humulene <alpha>	32.04	0.60
97	aromadendrene <allo>	32.34	0.18
98		32.82	0.13
99	muurolene <gamma>	32.93	0.40
100	germacrene D	33.07	0.32
101	selinene <beta>	33.27	0.33
102		33.46	0.17
103		33.56	0.13
104	selinene <alpha>	33.68	0.33
105		33.87	0.18
106		34.10	0.02
107	cadinene <gamma>	34.32	0.74
108		34.46	0.10
109	cadinene <delta>	34.70	1.06
110		35.03	0.06
111		35.16	0.04
112		35.25	0.04
113		35.40	0.04
114		35.61	0.01
115		35.86	0.04
116		36.30	0.03
117		36.42	0.10
118	caryophyllene oxide	36.62	0.58
119		36.87	0.02
120		37.06	0.10
121		37.53	0.20
122		37.86	0.09
123		37.95	0.08
124		38.40	0.09
125		38.55	0.02
126	cadinol <epi-alpha>	38.78	0.59
127		38.96	0.08
128		39.05	0.05
129		39.16	0.05
130		39.23	0.06
131		39.32	0.03
132		39.79	0.07
133		40.25	0.02

10/02/2016 14:30:41 Result:

Pic #	Component Name	TR [min]	Area [%]
134		44.78	0.06
135		45.97	0.01
136		49.64	0.04
137		49.86	0.12
138		50.70	0.02
139		51.28	0.08
140		54.95	0.12
141		55.22	0.35
142	incensole	55.40	0.65
			100.00

Chromatogram

Sample Name : Encens Sample #: 018qb604 Page 1 of 1
FileName : C:\Data\Colonne Apolaire\Huiles Essentielles\Encens\2016\encens 160204.raw
Date : 10/02/2016 14:30:42 Time of Injection: 05/02/2016 04:04:34
Method : encens.mth End Time : 82.00 min Low Point : -47.25 mV High Point : 993.88 mV
Plot Offset: -47.25 mV Plot Scale: 1041.1 mV

