

Certificate of Analysis

Analysed essential oil : Vetiver

Analysis date : November, 13th 2015

Batch : 288QB501

Shelf life : November 2018

❖ General description

Essential oil	Vétiver	Origin	Haïti
Latin name	Vetiveria zizanoides L.		

❖ Organoleptic characteristics

Appearance	Viscous liquid
Colour	Yellow brown
Odour	Characteristic

❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	0.993	0.980	<	d	<	1.005
Refractive index	1.5229	1.5160	<	IR	<	1.5270
Optical rotation	ND	+22°	<	$[\alpha]^{20}_d$	<	+48°

❖ 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 : 2015-11-13

Software Version : 6.2.0.0.0:B27
Sample Name : Vetiver haiti
Instrument Name : CLARUS 500
Rack/Vial : 0/7
Sample Amount : 1.000000
Cycle : 7

Date : 13/11/2015 12:53:23
Data Acquisition Time : 10/11/2015 03:27:05
Channel : A
Operator : Davenne
Dilution Factor : 1.000000

Result File :
Sequence File : C:\Sequences\CPG\2015\151109.seq

Rapport d'analyse

colonne apolaire

Pic #	Component Name	TR [min]	Area [%]
1		27.51	0.02
2		27.99	0.03
3		28.36	0.08
4		28.68	0.09
5		28.89	0.12
6		29.07	0.06
7		29.25	0.09
8		29.46	0.05
9		29.62	0.09
10		30.01	0.06
11		30.48	0.24
12		30.70	0.19
13	isoeugenol <(E)>	30.96	0.20
14		31.23	0.22
15		31.55	0.16
16		31.65	0.15
17	prezizaene	31.78	0.48
18	khusimene	31.98	0.64
19		32.18	0.38
20		32.31	0.15
21		32.58	0.19
22		32.74	0.26
23	muurolene <alpha>	33.10	1.40
24	vetispirene <alpha>	33.30	0.53
25	vetispirene <beta>	33.44	1.48
26	muurolene <gamma>	33.60	0.44
27		33.78	0.09
28		33.88	0.28
29		33.99	0.13
30	epizonarene	34.13	0.91
31		34.30	0.35
32		34.47	0.04
33	zonarene	34.59	0.30
34	vetivenene <gamma>	34.69	1.15
35		34.81	0.12
36		34.92	0.17
37	calacorene <alpha>	35.17	0.41
38		35.44	0.70
39		35.61	0.03
40	vetivenene <beta>	35.78	2.97
41		35.98	2.02
42		36.18	0.44
43		36.38	0.25
44		36.60	0.66
45		36.80	0.67
46		37.01	0.98
47		37.18	0.61
48		37.71	0.37
49		37.79	0.25
50		37.96	1.83
51	vetiveryl acetate	38.09	3.12
52		38.33	1.15
53	oplopenone <beta>	38.53	1.25
54		38.67	0.28
55		38.82	0.58
56		38.97	1.01
57		39.07	0.63
58		39.22	3.44

13/11/2015 12:53:23 Result:

Pic #	Component Name	TR [min]	Area [%]
59		39.32	2.27
60		39.44	2.70
61		39.57	0.55
62		39.70	0.60
63	zizazone <epi>	39.78	1.27
64		39.88	0.62
65		40.05	2.47
66		40.30	0.35
67		40.41	0.75
68		40.55	1.21
69		40.65	1.05
70		40.75	0.54
71		40.95	0.19
72		41.04	0.70
73	vetiselinol	41.24	0.92
74		41.37	0.27
75		41.58	3.95
76		41.75	1.06
77		42.03	1.53
78	khusimol	42.20	13.58
79		42.37	0.56
80		42.56	0.25
81		42.72	0.11
82		42.84	0.41
83		42.99	0.22
84		43.09	0.46
85		43.31	0.50
86		43.58	0.23
87	isovalencenol <(E)>	43.87	11.32
88	vetivenic acid	43.99	0.78
89		44.09	1.94
90		44.24	0.98
91	vetivone <beta>	44.45	4.61
92		44.71	0.09
93		44.90	0.84
94	vetivone <alpha>	45.18	4.32
95		45.79	0.08
96		46.04	0.02
97		46.71	0.03
98		46.87	0.17
99		47.14	0.18
100		47.40	0.07
101		47.68	0.09
102		48.15	0.04
103		48.50	0.04
104		50.32	0.03
105		50.84	0.02
106		52.44	0.06
			100.00

Chromatogram

Sample Name : Vetiver haiti Sample #: 288qb501 Page 1 of 1
FileName : C:\Data\Colonne Apolaire\Huiles Essentielles\Vétiver\2015\vétiver haiti151109.raw
Date : 13/11/2015 12:53:25
Method : vétiver.mth Time of Injection: 10/11/2015 03:27:05
Start Time : 0.00 min End Time : 82.00 min Low Point : -47.20 mV High Point : 993.88 mV
Plot Offset: -47.20 mV Plot Scale: 1041.1 mV

