

Certificate of Analysis

Analysed essential oil : Geranium

Analysis date : March, 07th 2017

Batch : 037FA704

Shelf life : August 2019

❖ General description

Essential oil	Geranium	Origin	Egypt
Latin name	Pelargonium x asperum Ehrh. ex Willd		

❖ Organoleptic characteristics

Appearance	Clear and mobile liquid
Colour	Clear Yellow
Odour	Characteristic

❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	0.899	0.885	<	d	<	0.905
Refractive index	1.4679	1.4610	<	IR	<	1.4750
Optical rotation	-9,70°	-14°	<	$[\alpha]^{20}_d$	<	-8°

❖ Volatile elucidation

GC : Perkin Elmer – Clarus 500

Column : Elite – WAX m, Ø 0.25 mm, 0.25 µm df

Injection : split

Detector : FID

Carrier gas : H₂

⇒ See Chromatogram : polar column

Date : 2017-03-07

Software Version : 6.3.2.0646
Sample Name : Geranium egypte 037FA704
Instrument Name : CLARUS 500
Rack/Vial : 0/1
Sample Amount : 1.000000
Cycle : 1

Date : 3/7/2017 2:11:46 PM
Data Acquisition Time : 3/3/2017 12:13:32 PM
Channel : B
Operator : Charlene
Dilution Factor : 1.000000

Result File :
Sequence File : C:\Sequences\CPG\2017\170303.seq

Rapport d'analyse

colonne polaire Elite WAX

pic #	Nom composant	TR [min]	Aire [%]
1	pinene <alpha>	3.08	0.54
2		4.57	0.06
3		5.42	0.03
4	myrcene+phellandrene <alpha>	5.84	0.16
5	limonene	6.62	0.17
6	phellandrene <beta>	6.84	0.09
7		7.02	0.05
8	ocimene <Z-beta>	7.83	0.09
9	ocimene <E-beta>	8.32	0.11
10	cymene <p>	8.72	0.09
11		9.16	0.03
12		10.76	0.06
13		11.00	0.08
14	rose oxide <cis>	11.53	1.17
15	rose oxide <trans>	12.01	0.48
16		14.02	0.05
17	linalool oxide <cis>	14.72	0.22
18	menthone	15.14	1.76
19	cubebene <alpha>	15.39	0.22
20		15.65	0.04
21	linalool oxide <trans>	15.76	0.12
22	citronellal + menthone <iso>	16.14	5.25
23	copaene <alpha>	16.46	0.56
24		17.12	0.11
25	bourbonene <beta>	17.39	1.13
26		17.81	0.06
27	linalool	18.99	4.68
28	linalool acetate	19.24	0.10
29		19.36	0.14
30		19.93	0.21
31	caryophyllene<E>	20.09	1.32
32	terpinen-4-ol	20.46	0.11
33		20.55	0.05
34		20.66	0.30
35		21.15	0.45
36	citronellyl formate	21.50	7.46
37		21.79	0.39
38		22.50	0.21
39	humulene <alpha>	22.62	0.27
40	citronellyl acetate	23.02	0.33
41		23.14	0.54
42		23.49	0.36
43		23.67	0.25
44	terpineol <alpha>	23.91	0.34
45	germacrene D	24.03	1.36
46		24.30	0.26
47	geranyl formate	24.46	3.12
48	bicyclogermacrene	24.86	0.57
49	geranial	24.96	0.72
50		25.29	0.36
51		25.42	0.09
52	cadinene <gamma>	25.85	0.51
53	cadinene<delta>	25.95	0.95
54		26.14	0.12
55	geranyl acetate	26.31	0.66
56	citronellol	26.80	32.67
57	nerol	27.70	0.34

3/7/2017 2:11:46 PM Result:

pic #	Nom composant	TR [min]	Aire [%]
58		27.87	0.49
59		28.33	0.39
60	geranyl propanoate	28.49	0.65
61	geraniol	29.39	14.49
62		29.82	0.32
63		30.29	0.10
64		30.59	0.08
65		30.81	0.06
66	geranyl butanoate	30.97	1.29
67		31.92	0.05
68	caryophyllene oxide	32.66	0.26
69		33.62	0.04
70		34.07	0.22
71		34.49	0.44
72		35.45	0.31
73		35.64	0.30
74		35.92	0.04
75		36.21	0.06
76	eudesmol <10-epi-gamma>	36.67	4.38
77		37.09	0.16
78	spathulenol	37.42	0.27
79	geranyl tiglate	37.61	1.15
80		38.60	0.04
81		38.82	0.05
82		38.98	0.18
83	phenyl ethyl tiglate <2>	39.43	0.84
84		39.66	0.11
85		40.06	0.38
86		40.27	0.20
87		40.36	0.34
88		40.60	0.21
89		42.32	0.11
90		42.89	0.05
			100.00

Laboratoire Rosier Davenne

Chromatogram

Sample Name : Geranium egypte 037FA704 Sample #: 037FA704 Page 1 of 1
FileName : C:\Data\Colonne Polaire\Huiles Essentielles\Géranium\Géranium Egypte\2017\géranium egypte 170303.raw
Date : 3/7/2017 2:11:47 PM
Method : géranium egypte.mth Time of Injection: 3/3/2017 12:13:32 PM
Start Time : 0.00 min End Time : 82.00 min Low Point : -47.16 mV High Point : 993.88 mV
Plot Offset: -47.16 mV Plot Scale: 1041.0 mV

