

# Certificate of Analysis

Analysed essential oil : Rose (Bulgarian type)

Analysis date : February, 13<sup>th</sup> 2017

Batch : 291ME605

Shelf life : April 2019

## ❖ General description

Essential oil	Rose	Origin	Bulgaria
Latin name	<i>Rosa damascena</i> P. Miller		

## ❖ Organoleptic characteristics

Appearance	More or less crystallized liquid
Colour	Pale yellow
Odour	Characteristic

## ❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	0,863	0.848	<	d	<	0.880
Refractive index	1.4623	1.4520	<	IR	<	1.4700
Optical rotation	-2,70°	-7°	<	$[\alpha]^{20}_d$	<	-2°

## ❖ Volatile elucidation

GC : Perkin Elmer – Clarus 500

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

Injection : split

Detector : FID

Carrier gas : H<sub>2</sub>

⇒ See Chromatogram : polar column

Date : 2017-02-13

Software Version : 6.3.2.0646  
Sample Name : Rose Bulgare 291ME605  
Instrument Name : CLARUS 500  
Rack/Vial : 0/9  
Sample Amount : 1.000000  
Cycle : 9

Date : 2/13/2017 12:30:37 PM  
Data Acquisition Time : 2/10/2017 6:59:36 AM  
Channel : B  
Operator : Charlene  
Dilution Factor : 1.000000

Result File :  
Sequence File : C:\Sequences\CPG\2017\170209.seq

## Rapport d'analyse

colonne polaire Elite WAX

pic #	Nom composant	TR [min]	Aire [%]
1		1.32	0.02
2		1.56	0.01
3	ethanol	2.14	1.60
4		2.56	0.03
5	pinene <alpha>	3.10	1.26
6		4.00	0.04
7	pinene <beta>	4.49	0.28
8	sabinene	4.79	0.05
9	myrcene	5.89	0.32
10		6.17	0.01
11		6.31	0.09
12	limonene	6.67	0.11
13		6.87	0.03
14	ocimene <(Z)-beta>	7.94	0.08
15	terpinene <gamma>	8.05	0.09
16		8.24	0.02
17	ocimene <(E)-beta>	8.37	0.07
18		8.77	0.02
19		9.21	0.04
20		9.44	0.02
21		10.54	0.02
22		11.05	0.01
23		11.25	0.04
24	rose oxide <cis>	11.58	0.24
25		11.76	0.24
26	rose oxide <trans>	12.06	0.11
27		12.78	0.04
28		13.10	0.07
29		13.53	0.01
30		13.97	0.01
31		14.77	0.04
32		15.52	0.03
33		15.80	0.04
34		16.19	0.06
35		16.51	0.02
36		16.97	0.01
37		17.25	0.10
38		17.44	0.03
39		17.60	0.08
40	linalool	19.07	3.26
41		19.30	0.02
42		20.01	0.01
43	caryophyllene<E>+guaiene<alpha>	20.18	1.00
44	terpinen-4-ol	20.52	0.41
45		21.34	0.02
46		21.57	0.03
47		22.35	0.12
48	humulene <alpha>	22.65	0.11
49		22.84	0.01
50	citronellyl acetate	23.09	0.78
51		23.19	0.30
52		23.57	0.02
53	terpineol<alpha>	23.98	0.86
54	germacreneD	24.09	0.36
55		24.48	0.10
56	heptadecane <n>	25.02	1.26
57	neryl acetate	25.29	0.30

2/13/2017 12:30:37 PM Result:

pic #	Nom composant	TR [min]	Aire [%]
58		25.49	0.07
59		26.01	0.02
60		26.24	0.12
61	geranyl acetate	26.41	1.99
62	citronellol	26.98	27.95
63		27.35	0.07
64	nerol	27.87	9.29
65		28.09	0.24
66		28.21	0.05
67	octadecane <n>	28.54	0.51
68		28.95	0.02
69	geraniol	29.61	24.43
70		29.80	0.09
71		30.13	0.05
72		30.37	0.01
73		30.65	0.01
74	phenyl ethyl alcohol	30.92	4.10
75	nonadecane <n>	32.00	6.95
76	nonadecene	32.15	1.08
77		32.73	0.04
78		33.00	0.02
79		33.31	0.03
80		33.89	0.01
81	methyl eugenol	34.46	0.54
82	eicosane <n>	35.05	2.07
83		35.24	0.05
84	nerolidol <(E)>	35.72	0.17
85		35.89	0.03
86		36.36	0.03
87		36.57	0.02
88		37.13	0.03
89	heneicosane <n>	38.14	2.52
90		38.30	0.04
91	eugenol	38.76	1.11
92		38.93	0.12
93		39.18	0.02
94		39.44	0.04
95		40.20	0.02
96		40.40	0.03
97		40.65	0.02
98		40.95	0.05
99		41.74	0.02
100		42.14	0.04
101		43.12	0.02
102		43.52	0.06
103	docosane <n>	43.83	0.37
104		44.06	0.01
105		44.47	0.01
106		44.69	0.64
107		45.27	0.01
108		45.84	0.01
109		46.53	0.02
110		48.42	0.01
111		49.19	0.10
112		50.10	0.02
113		50.75	0.05
114		51.01	0.01
115		52.86	0.02
116		54.08	0.01
117		54.23	0.07
118		54.43	0.02
119		55.16	0.01
120		56.04	0.01
121		58.94	0.01
			100.00

# Chromatogram

Sample Name : Rose Bulgare 291ME605      Sample #: 322AD601      Page 1 of 1  
 File Name : C:\Data\Colonne Polaire\Huiles Essentielles\Rose\Rose Bulgare\2017\rose bulgare 170209.raw  
 Date : 2/13/2017 12:30:38 PM  
 Method : rose bulgare pure.mth      Time of Injection: 2/10/2017 6:59:36 AM  
 Start Time : 0.00 min      End Time : 82.00 min      Low Point : -24.61 mV      High Point : 565.79 mV  
 Plot Offset: -24.61 mV      Plot Scale: 590.4 mV

