



PLANT THERAPY

100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: N10101

ESSENTIAL OIL: NEROLI

BOTANICAL NAME: CITRUS AURANTIUM

ORIGIN: EGYPT

KEY CONSTITUENTS PRESENT IN THIS BATCH OF NEROLI OIL	%
LINALOOL	36.1
LIMONENE	14.0
LINALYL ACETATE	10.9
α -TERPINEOL	5.7
Trans- β -OCIMENE	4.1
β -PINENE	3.8
GERANIOL	3.1
GERANYL ACETATE	3.0
Trans-NEROLIDOL	2.4
SABINENE	2.3
β -MYRCENE	1.8
NERYL ACETATE	1.6
Trans,trans-FARNESOL	1.2
NEROL	1.2
α -PINENE	0.4
METHYL ANTHRANILATE	0.2
INDOLE	0.1

Comments from Robert Tisserand: A true, delicate floral oil, which conforms to the ISO standard for Egyptian neroli.

CUSTOMER :

**PLANT THERAPY
126 Locust Street South
Twin Falls, ID 83 301
USA**

Sample nature: ESSENTIAL OIL
Botanical species: CITRUS AURANTIUM
Reference name: NEROLI 05
Batch number: N10101
Origin: EGYPT
Part: FLOWER
Pyrenessences reference: A288
Date of reception: 04/04/2014
Date analysis: 05/30/2014
Packaging: Amber flask of 5 ml – ambient temperature
Analysis: Classic

Validated report by :

Daniel DANTIN



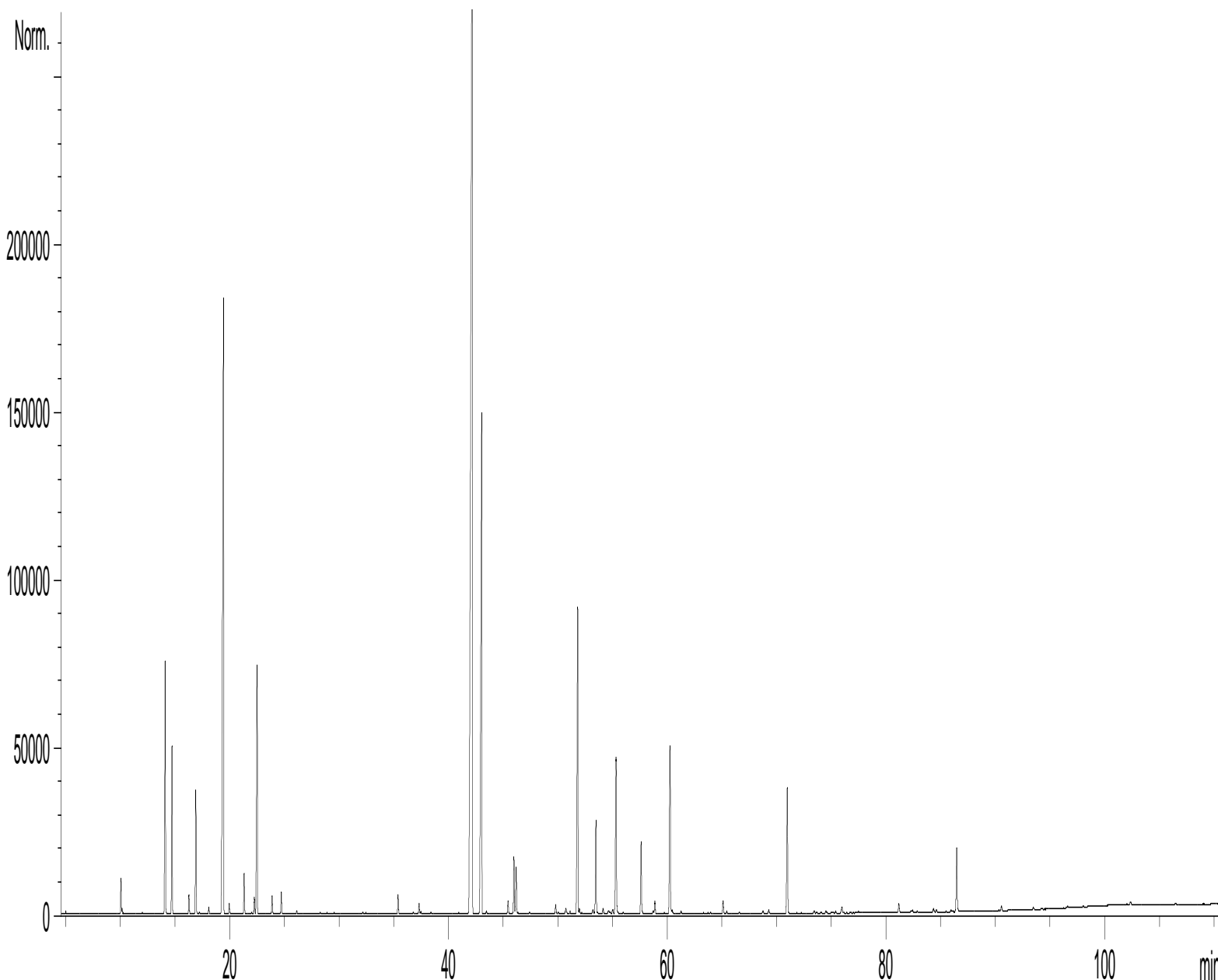
GAS CHROMATOGRAPHY norm NF ISO 11024

Analysis conditions :

CPG 6890 / MS 5973 – Column : VF WAX polar 60 m × 0,25 mm × 0,5 µm
CPG 5890 FID - Column : : HP INNOWAX polar 60 m × 0,25 mm × 0,5 µm
Temperature program : 6 mn to 60 °C -2 °C/mn→250 °C - 20mn to 250 °C
Carrier gas He : 23 psis/MS – 30 psis/FID
Sample injection / split : 1 µl of 10 % solution in hexane,
Mass range : 30 to 350, Oil components are identified by a combination of retention times
(our own database) and mass spectra library NKS 75 000 records,
Percentages are calculated from GC/FID peaks areas without using corrections factors,

Chromatographic profile (GC/FID)

FID1 A, (PLANTHERICAFAA288.D)



Identification results 1 : NEROLI 05 BATCH N10101

Peak	RT (min)	Compound name	%	Norm (%)	Allergens (%)
1	5,0	ACETONE	0,03		
2	7,5	METHYL VINYL KETONE	0,01		
3	10,1	α-PINENE	0,44	< 2,0	
4	10,2	α-THUYENE	0,06		
5	10,4	PRENOL	0,02		
6	10,8	TOLUENE	0,01		
7	12,1	CAMPHENE	0,02		
8	14,2	β-PINENE	3,77	2,0 – 8,0	
9	14,8	SABINENE	2,31	< 3,0	
10	16,4	Δ ³ -CARENE	0,29		
11	17,0	β-MYRCENE	1,77	1,0 – 4,0	
12	17,3	α-PHELLANDRENE	0,03		
13	18,2	α-TERPINENE	0,11		
14	19,5	LIMONENE	14,00	7,0 – 17,0	14,00
15	20,0	Cis-ARBUSCULONE	0,05		
16	20,1	β-PHELLANDRENE + 1,8-CINEOLE	0,11		
17	21,2	FURAN 2-PENTYL	0,01		
18	21,4	Cis-β-OCIMENE	0,59		
19	22,1	Trans-ARBUSCULONE	0,03		
20	22,4	γ-TERPINENE	0,25		
21	22,6	Trans-β-OCIMENE	4,05	3,0 – 9,0	
22	23,9	HEXYL ACETATE	0,02		
23	24,0	p-CYMENE	0,27		
24	24,8	TERPINOLENE	0,34		
25	25,5	TRIDECANE	0,01		
26	26,2	4,8-DIMETHYL-1,3,7-NONATRIENE	0,05		
27	26,9	Cis-3-HEXENYL ACETATE	0,01		
28	27,5	LINALOOL METHYL ETHER Mw=168	0,01		
29	28,4	6-METHYL-5-HEPTEN-2-ONE	0,03		
30	29,0	1-HEXANOL	0,03		
31	29,7	TERPENIC EPOXIDE	0,03		
32	30,8	ALLO-OCIMENE	0,02		
33	32,6	NONANAL	0,04		
34	35,5	LINALOOL cis-OXYDE	0,30		
35	35,9	LIMONENE cis-1,2-EPOXIDE	0,02		
36	36,1	ACETIC ACID	0,02		
37	36,9	Trans-THUYANOL	0,03		
38	37,4	LINALOOL Trans-OXYDE	0,18		
39	37,6	OCTYL ACETATE	0,05		
40	38,4	BICYCLOELEMENE	0,01		
41	38,5	PINENOL ISOMER	0,01		
42	41,1	BENZALDEHYDE	0,03		
43	42,3	LINALOOL	36,14	26,0 – 55,0	36,14
44	42,6	1-OCTANOL	0,02		
45	43,2	LINALYL ACETATE	10,91	3,0 – 20,0	

Identification results 2 : NEROLI 05 BATCH N10101

Peak	RT (min)	Compound name	%	Norm (%)	Allergens (%)
46	43,6	Trans-p-MENTH-2-EN-1-OL	0,04		
47	44,9	BORNYL ACETATE	0,01		
48	45,0	α ,trans-BERGAMOTENE	0,01		
49	45,6	β -ELEMENE	0,23		
50	46,1	TERPINENE-4-OL	0,92		
51	46,3	β -CARYOPHYLLENE	0,84		
52	47,5	Cis-p-MENTH-2-EN-1-OL	0,05		
53	49,4	Trans-PINOCARVEOL	0,02		
54	49,7	CITRONELLYL ACETATE	0,01		
55	49,9	E- β -FARNESENE	0,17		
56	50,1	Trans-p-2,8-MENTHADIEN-1-OL	0,03		
57	50,8	α -HUMULENE	0,12		
58	51,0	Trans-PIPERITOL	0,02		
59	51,2	NERAL + BENZYL NITRILE	0,03		0,03
60	51,8	HEPTADECANE	0,03		
61	51,9	α -TERPINEOL	5,71	2,0 – 8,0	
62	52,1	TERPENYL ACETATE	0,11		
63	52,3	BORNEOL	0,03		
64	52,6	GERANYL FORMIATE	0,02		
65	53,2	HEPTADECENE	0,04		
66	53,3	GERMACRENE D	0,05		
67	53,6	NERYL ACETATE	1,62	Nd – 7,0	
68	54,0	α -MUUROLENE	0,02		
69	54,3	GERANIAL	0,10		0,10
70	54,8	BICYCLOGERMARENE	0,13		
71	55,1	α -FARNESENE	0,09		
72	55,5	GERANYL ACETATE	3,00	1,0 – 5,0	
73	55,6	CITRONELLOL	0,06		0,06
74	56,1	δ -CADINENE	0,04		
75	56,7	β -SESQUIPELLANDRENE	0,02		
76	57,7	NEROL	1,20		
77	58,8	3,5,7-OCTATRIENE-2-OL, 2,6-DIMETHYL	0,05		
78	59,0	2-PHENYLETHYL ACETATE	0,20		
79	60,4	GERANIOL	3,14	1,0 – 5,0	3,14
80	60,6	p-CYMENE-8-OL	0,07		
81	61,4	E-GERANYLACETONE	0,04		
82	61,6	FURAN, 3-PHENYL	0,01		
83	63,7	NONADECANE	0,02		
84	64,1	PHENYLETHYL ALCOHOL	0,03		
85	65,2	PHENYL ACETONITRILE	0,24		
86	65,6	3,7-OCTADIENE-2,6-DIOL, 2,6-DIMETHYL	0,03		
87	66,7	Trans-JASMONE	0,02		
88	67,2	IONONE ISOMER	0,01		
89	68,8	ISOCARYOPHYLLENE EPOXIDE	0,06		
90	69,4	CARYOPHYLLENE EPOXIDE	0,08		

Identification results 3 : NEROLI 05 BATCH N10101

Peak	RT (min)	Compound name	%	Norm (%)	Allergens (%)
91	71,1	Trans-NEROLIDOL	2,42	0,5 – 5,0	
92	73,5	METHYL, N-METHYLANTHRANILATE	0,05		
93	73,8	GLOBULOL	0,02		
94	74,1	VIRIDIFLOROL	0,01		
95	74,6	ALIPHATIC DITERPENOL	0,05		
96	75,2	IONONE ISOMER	0,02		
97	76,1	SPATHULENOL	0,14		
98	77,6	AROMATIC COMPOUND	0,02		
99	79,8	2,7-OCTADIENE-1,6-DIOL, 2,6-DIMETHYL	0,01		
100	80,6	β-SINENSAL	0,02		
101	81,0	α-CADINOL	0,02		
102	81,3	METHYL ANTHRANILATE	0,18	nd – 1,0	
103	82,4	FARNESYL ACETATE	0,03		
104	82,5	FARNESAL	0,04		
105	82,9	SESQUITERPENOL	0,02		
106	84,4	FARNESOL ISOMER	0,07		
107	84,7	FARNESOL ISOMER	0,04		
108	86,1	α-SINENSAL	0,04		
109	86,5	Trans,trans-FARNESOL	1,23	0,5 – 4,0	1,23
110	90,7	INDOLE	0,08	Nd – 1,0	
111	93,5	PENTACOSANE	0,04		
112	96,7	METHYL-N-FORMYLANTHRANILATE	0,03		
113	98,1	PHYTOL	0,02		
114	102,1	HEPTACOSANE	0,02		
115	102,4	DITERPENIC COMPOUND	0,06		
		TOTAL	99,99		54,70