

Certificate of Analysis

Analysed essential oil : Grapefruit

Analysis date : April, 23rd 2014

Batch : 112V1401

Shelf life : May 2015

❖ General description

Essential oil	Grapefruit	Origin	Israel
Latin name	<i>Citrus paradisi</i>		

❖ Organoleptic characteristics

Appearance	Clear and mobile liquid
Colour	Yellow
Odour	Characteristic

❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	0.853	0.840	<	d	<	0.860
Refractive index	1.4740	1.4700	<	RI	<	1.4790
Optical rotation	+95.35°	+89°	<	$[\alpha]^{20}_d$	<	+98°

❖ 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 : 2014-05-19

Software Version : 6.2.0.0.0:B27
Sample Name : Pamplemousse
Instrument Name : CLARUS 500
Rack/Vial : 0/3
Sample Amount : 1.000000
Cycle : 3

Date : 23/04/2014 09:14:30
Data Acquisition Time : 22/04/2014 20:14:06
Channel : A
Operator : Davenne
Dilution Factor : 1.000000

Result File :
Sequence File : C:\Sequences\CPG\2014\140422bis.seq

Rapport d'analyse

colonne apolaire

Pic #	Component Name	TR [min]	Area [%]
1	pinene <alpha>	10.16	0.42
2	sabinene	11.60	0.35
3	pinene <beta>	11.75	0.07
4	myrcene + octanal <n>	12.36	1.87
5	limonene + phellandrene <beta>	14.06	95.37
6	ocimene <(E)-beta>	14.79	0.11
7	linalool	16.85	0.12
8		18.22	0.04
9		18.99	0.06
10	terpineol <alpha>	20.74	0.03
11	decanal <n>	21.40	0.23
12	geranial	23.98	0.04
13	copaene <alpha>	29.44	0.09
14	elemene <beta>	29.93	0.09
15	caryophyllene <(E)>	31.10	0.24
16		32.41	0.03
17	germacrene D	33.45	0.07
18	cadinene <delta>	35.07	0.09
19	nootkatone	44.32	0.22
20		56.58	0.05
21		56.94	0.08
22		68.48	0.33
			100.00

Chromatogram

Sample Name : Pamplémousse Sample #: 112VI401 Page 1 of 1
FileName : C:\Data\Colonne Apolaire\Huiles Essentielles\Pamplémousse\2014\pamplémousse 140422 112vi401.raw
Date : 23/04/2014 09:14:32 Time of Injection: 22/04/2014 20:14:06
Method : pamplémousse.mth Start Time : 0.00 min End Time : 82.00 min Low Point : -47.29 mV High Point : 993.88 mV
Plot Offset: -47.29 mV Plot Scale: 1041.2 mV

