

# Certificate of Analysis

Analysed essential oil : **Green Mandarin**

Analysis date : April, 12<sup>th</sup> 2017

Batch : 04PE702

Shelf life : September 2018

## ❖ General description

Essential oil	Green Mandarin	Origin	Argentina
Latin name	<i>Citrus reticulata</i>		

## ❖ Organoleptic characteristics

Appearance	Clear and mobile liquid
Colour	Brown dark green
Odour	Characteristic

## ❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	0.855	0,840	<	d	<	0,860
Refractive index	1.4741	1,465	<	IR	<	1,485
Optical rotation	ND	-	<	$[\alpha]^{20}_D$	<	-
Peroxyde index	3,4 mmol/L	0 mmol/L	<	IP	<	20 mmol/L

## ❖ 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 : H<sub>2</sub>

⇒ See Chromatogram : polar column

Date : 2017-04-12

Software Version : 6.3.2.0646  
Sample Name : HE Mandarine Verte 074PE702  
Instrument Name : CLARUS 500  
Rack/Vial : 0/6  
Sample Amount : 1.000000  
Cycle : 6

Date : 4/12/2017 9:37:24 AM  
Data Acquisition Time : 4/11/2017 11:54:47 PM  
Channel : B  
Operator : Clemence  
Dilution Factor : 1.000000

Result File :  
Sequence File : C:\Sequences\CPG\2017\170411.seq

## Rapport d'analyse

colonne polaire Elite WAX

pic #	Nom composant	TR [min]	Aire [%]
1	pinene <alpha>	3.10	1.98
2	thujene <alpha>	3.17	0.71
3		3.73	0.02
4	pinene <beta>	4.48	1.34
5	sabinene	4.78	0.33
6	phellandrene <alpha>	5.79	0.06
7	myrcene	5.88	1.84
8	terpinene <alpha>	6.17	0.33
9	limonene	6.81	74.09
10	phellandrene <beta>	6.92	0.23
11	terpinene <gamma>	8.11	15.19
12		8.36	0.07
13	cymene <p>	8.76	0.54
14	terpinolene	9.19	0.70
15		9.42	0.07
16		13.07	0.03
17		15.66	0.03
18		15.89	0.02
19		16.16	0.02
20		16.49	0.03
21		16.94	0.08
22		18.25	0.02
23		18.63	0.06
24	linalool	18.99	0.22
25	linalool acetate	19.30	0.04
26	caryophyllene<E>+elemene<beta>	20.12	0.23
27	terpinen-4-ol	20.48	0.04
28	humulene<alpha>	22.62	0.03
29	terpineol <alpha>	23.93	0.20
30	germacrene D	24.04	0.06
31		24.54	0.07
32		25.79	0.10
33		25.96	0.03
34	farnesene <(E,E)-alpha>	26.15	0.40
35	methyl anthranilate <methyl-n>	35.48	0.40
36		39.68	0.12
37	sinensal <alpha>	43.44	0.30
			100.00

Laboratoire Rosier Davenne

Chromatogram

Sample Name : HE Mandarine Verte 074PE702      Sample #: 074PE702      Page 1 of 1  
FileName : C:\Data\Colonne Polaire\Huiles Essentielles\Mandarine\Mandarine Verte\2017\mandarine verte 170411.raw  
Date : 4/12/2017 9:37:25 AM  
Method : mandarine verte.mth      Time of Injection: 4/11/2017 11:54:47 PM  
Start Time : 0.00 min      End Time : 82.00 min      Low Point : -47.14 mV      High Point : 993.88 mV  
Plot Offset: -47.14 mV      Plot Scale: 1041.0 mV

