

# Certificate of Analysis

Analysed essential oil : **Arvensis Mint**  
(partially dementholated)

Analysis date : December, 9<sup>th</sup> 2015

Batch : 342BV502

Shelf life : January 2019

## ❖ General description

Essential oil	Arvensis mint	Origin	India
Latin name	<i>Mentha arvensis</i>		

## ❖ Organoleptic characteristics

Appearance	Clear and mobile liquid
Colour	Almost colourless
Odour	Characteristic

## ❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	0.898	0.888	<	d	<	0.910
Refractive index	1.4584	1.4560	<	IR	<	1.4650
Optical rotation	-19.75°	-30°	<	$[\alpha]^{20}_D$	<	-10°

## ❖ 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 : H<sub>2</sub>

⇒ See Chromatogram : non-polar column

Date : 2015-12-09

Software Version : 6.2.0.0.0:B27  
Sample Name : Menthe arvensis  
Instrument Name : CLARUS 500  
Rack/Vial : 0/2  
Sample Amount : 1.000000  
Cycle : 2

Date : 09/12/2015 10:33:18  
Data Acquisition Time : 08/12/2015 18:29:21  
Channel : A  
Operator : Davenne  
Dilution Factor : 1.000000

Result File :  
Sequence File : C:\Sequences\CPG\2015\151208.seq

## Rapport d'analyse

colonne apolaire

Pic #	Component Name	TR [min]	Area [%]
1		7.22	0.05
2	tricyclene	9.47	0.23
3	thujene <alpha>	9.62	0.14
4	pinene <alpha>	9.84	1.18
5	camphene	10.32	0.04
6	sabinene	11.27	0.27
7	pinene <beta>	11.41	1.16
8	myrcene + octanol <3>	11.99	0.90
9		12.51	0.05
10		12.88	0.06
11		13.09	0.06
12	cymene <p>	13.22	0.21
13		13.43	0.20
14	limonene+cineole <1.8>	13.62	4.21
15	ocimene <E> <Beta>	14.43	0.04
16	terpinene <gamma>	14.88	0.11
17		15.25	0.21
18	terpinolene	16.22	0.10
19	linalool	16.51	0.13
20		17.31	0.05
21		17.89	0.06
22		18.11	0.04
23	isopulegol<neo>	18.46	1.17
24	menthone	18.63	22.45
25	menthone <iso>	19.01	9.99
26		19.24	0.03
27	menthol <neo>	19.41	4.21
28	menthol + terpinen-4-ol	19.84	41.68
29	menthol <iso>	20.22	0.72
30	terpineol <alpha>	20.41	0.73
31		20.62	0.06
32		20.78	0.05
33		21.24	0.07
34		21.57	0.05
35	pulegone	22.23	1.43
36	piperitone	22.76	0.99
37		24.28	0.26
38		24.76	0.11
39		24.93	0.11
40	menthyl acetate	25.10	3.25
41		26.39	0.03
42		27.38	0.07
43		29.09	0.03
44	bourbonene <beta>	29.38	0.24
45	elemene <beta>	29.63	0.14
46	caryophyllene <(E)>	30.74	1.15
47		31.13	0.12
48		31.50	0.06
49		31.69	0.07
50	humulene <alpha>	32.00	0.23
51		32.94	0.06
52	germacrene D	33.09	0.10
53		33.26	0.04
54	bicyclogermacrene	33.74	0.29
55		33.89	0.04
56		34.33	0.06
57	cadinene <delta>	34.72	0.12
58		36.08	0.05

09/12/2015 10:33:18 Result:

Pic #	Component Name	TR [min]	Area [%]
59		36.46	0.08
60	caryophyllene oxide	36.63	0.11
61		38.80	0.04
62		49.66	0.04
			100.00

Chromatogram

Sample Name : Menthe arvensis      Sample #: 342bv502      Page 1 of 1  
FileName : C:\Data\Colonne Apolaire\Huiles Essentielles\Menthe\Menthe des Champs (Arvensis)\2015\menthe arvensis 151208.raw  
Date : 09/12/2015 10:33:20  
Method : menthe arvensis.mth      Time of Injection: 08/12/2015 18:29:21  
Start Time : 0.00 min      End Time : 82.00 min      Low Point : -47.23 mV      High Point : 993.88 mV  
Plot Offset: -47.23 mV      Plot Scale: 1041.1 mV

