

# Certificate of Analysis

Analysed essential oil : Clove Buds

Analysis date : October, 27<sup>th</sup> 2016

Batch : 242PG604

Shelf life : September 2018

## ❖ General description

Essential oil	Clove (buds)	Origin	Indonesia
Latin name	<i>Eugenia caryophyllata</i>		

## ❖ Organoleptic characteristics

Appearance	Clear and mobile liquid
Colour	Pale brown
Odour	Characteristic

## ❖ Physico-chemical characteristics

	Results (at 20°C)	Technical specifications				
Specific gravity	1.046	1.022	<	d	<	1.063
Refractive index	1.5316	1.5280	<	IR	<	1.5380
Optical rotation	-0.20°	-1.5°	<	$[\alpha]^{20}_D$	<	0°

## ❖ 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 : 2016-10-27

Software Version : 6.3.2.0646  
Sample Name : Girofle Clou 242PG604  
Instrument Name : CLARUS 500  
Rack/Vial : 0/4  
Sample Amount : 1.000000  
Cycle : 4

Date : 11/2/2016 3:58:39 PM  
Data Acquisition Time : 10/25/2016 10:33:31 PM  
Channel : B  
Operator : Charlene  
Dilution Factor : 1.000000

Result File :  
Sequence File : C:\Sequences\CPG\2016\161025.seq

## Rapport d'analyse

colonne polaire Elite WAX

pic #	Nom composant	TR [min]	Aire [%]
1		6.73	0.02
2		15.50	0.06
3	copaene <alpha>	16.57	0.18
4		17.39	0.02
5		19.11	0.04
6		19.36	0.04
7	caryophyllene <(E)>	20.27	6.67
8		22.13	0.12
9	humulene <alpha>	22.73	0.87
10		23.62	0.04
11		25.30	0.05
12	cadinene <delta>	26.07	0.30
13		26.24	0.13
14		26.75	0.08
15		28.24	0.02
16		28.44	0.07
17		30.57	0.05
18		32.48	0.11
19	caryophyllene oxide	32.81	0.21
20	methyl eugenol	34.57	0.08
21		35.26	0.03
22		35.80	0.05
23		36.16	0.03
24	eugenol	39.01	80.38
25	eugenol acetate	41.69	9.83
26		42.11	0.03
27		42.48	0.06
28		43.63	0.07
29		43.82	0.16
30		44.71	0.06
31		47.99	0.11
32		50.88	0.02
33		66.09	0.03
			100.00

Laboratoire Rosier Davenne

# Chromatogram

Sample Name : Girofle Clou 242PG604      Sample #: 242PG604      Page 1 of 1  
File Name : C:\Data\Colonne Polaire\Huiles Essentielles\Girofle\Clous\2016\girofle clous 161025.raw  
Date : 11/2/2016 3:58:39 PM  
Method : girofle clous.mth      Time of Injection: 10/25/2016 10:33:31 PM  
Start Time : 0.00 min      End Time : 82.00 min      Low Point : -47.13 mV      High Point : 993.88 mV  
Plot Offset: -47.13 mV      Plot Scale: 1041.0 mV

