



# PLANT THERAPY

100% PURE ESSENTIAL OILS

## GC/MS BATCH NUMBER: L10101

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**ESSENTIAL OIL:** LAUREL LEAF  
**BOTANICAL NAME:** LAURUS NOBILIS  
**ORIGIN:** CROATIA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF OF LAUREL LEAF OIL	%
1,8-CINEOLE	45.0
TERPINYL ACETATE	10.0
SABINENE	7.8
$\alpha$ -PINENE	5.2
$\beta$ -PINENE	4.6
LINALOOL	3.9
LIMONENE	3.4
METHYLEUGENOL	2.8
TERPINEN-4-OL	2.4
$\alpha$ -TERPINEOL	2.2
p-CYMENE	1.8
$\gamma$ -TERPINENE	1.5
EUGENOL	1.0

Comments from Robert Tisserand: A very good laurel leaf oil in terms of odor profile and analysis.

**CUSTOMER :**

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

**Sample nature :** ESSENTIAL OIL  
**Botanical species :** LAURUS NOBILIS  
**Reference name :** LAUREL  
**Batch number :** L10101  
**Origin :** CROATIA  
**Part:** LEAF  
**Pyreñessences reference :** D600  
**Date of reception :** 04/30/2015  
**Date analysis :** 05/12/2015  
**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 6890 FID - Column : VF WAX 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

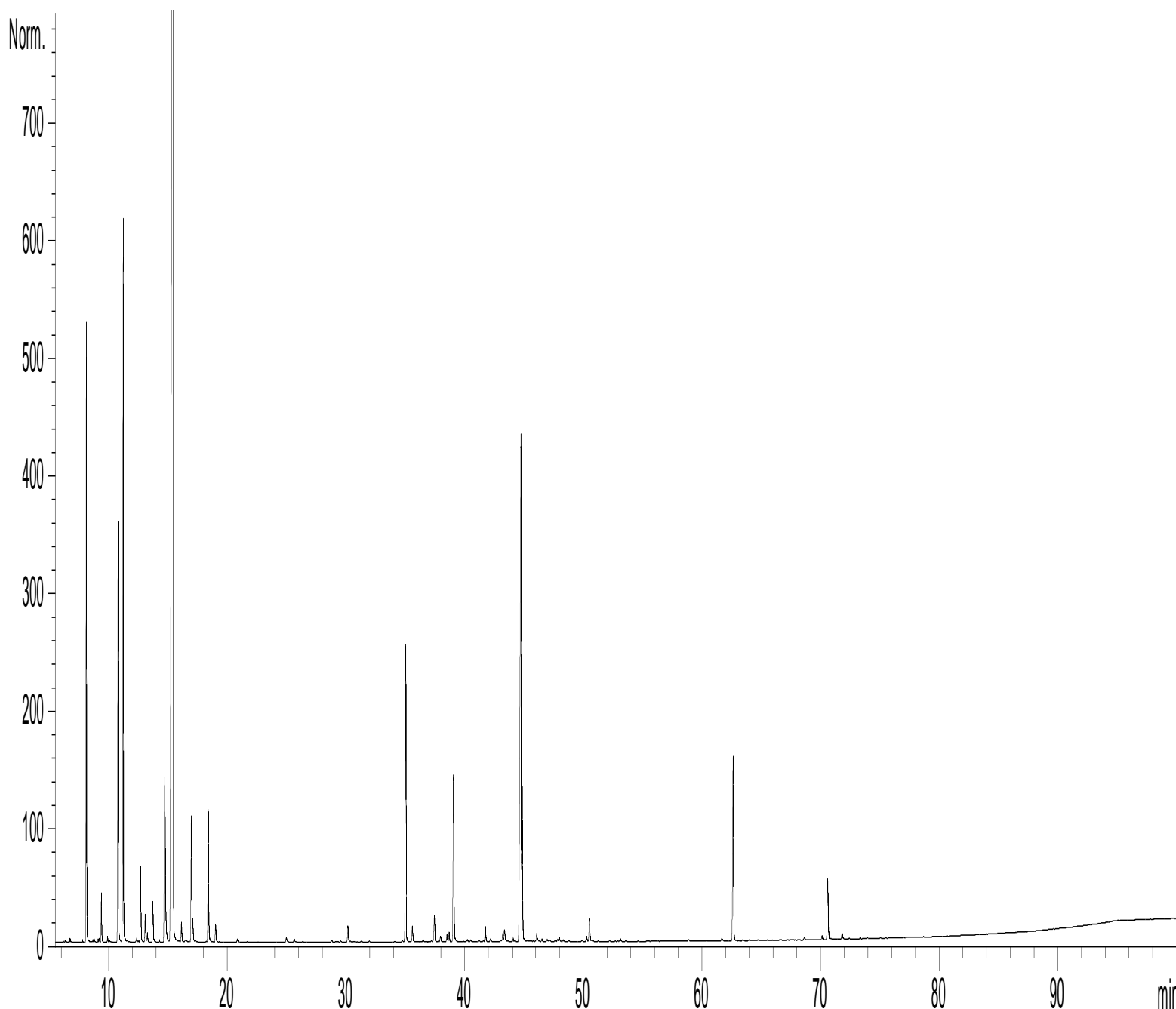
Sample injection / split : 1 µl of 10 % solution in hexane,

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, (Z:\PLANTHER\LN15D600.D)



**Identification results 1 : LAUREL LEAF CROATIA BATCH L10101**

Peak	RT (min)	Compound name	%	Norm (%)	Allergens (%)
1	6,2	BUTANAL, 2-METHYL	0,01		
2	6,3	ISOVALERALDEHYDE	0,02		
3	6,7	1-METHYLETHYL ISOBUTYRATE	0,03		
4	6,8	ETHYL ISOBUTYRATE	0,03		
5	7,8	TRICYCLENE	0,03		
6	8,1	<b>α-PINENE</b>	<b>5,17</b>		
7	8,2	α-THUYENE	0,40		
8	8,4	1-METHYLETHYL BUTYRATE	0,02		
9	8,7	1-METHYLETHYL 2-METHYLBUTYRATE	0,02		
10	8,8	ETHYL 2-METHYLBUTYRATE	0,04		
11	9,1	α-FENCHENE	0,03		
12	9,2	ETHYL ISOBUTYRATE	0,03		
13	9,4	CAMPHENE	0,50		
14	9,9	HEXANAL	0,05		
15	10,0	ISOBUTYL ISOBUTYRATE	0,04		
16	10,8	<b>β-PINENE</b>	<b>4,64</b>		
17	11,2	<b>SABINENE</b>	<b>7,80</b>		
18	11,5	PINADIENE	0,03		
19	12,4	Δ <sup>3</sup> -CARENE	0,07		
20	12,7	β-MYRCENE	0,87		
21	13,1	α-PHELLANDRENE	0,36		
22	13,3	ISOBUTYL 2-METHYLBUTYRATE + ψ-LIMONENE	0,12		
23	13,7	α-TERPINENE	0,56		
24	14,3	2,3-DEHYDRO-1,8-CINEOLE	0,03		
25	14,7	<b>LIMONENE</b>	<b>3,40</b>		3,40
26	15,4	<b>1,8-CINEOLE</b>	<b>45,03</b>		
27	16,1	Cis-β-OCIMENE	0,23		
28	16,8	Trans-ARBUSCULONE	0,01		
29	17,0	γ-TERPINENE	1,49		
30	17,1	Trans-β-OCIMENE	0,31		
31	17,3	MENTHATRIENE ISOMER	0,03		
32	18,2	m-CYMENE	0,01		
33	18,4	p-CYMENE	1,75		
34	19,0	TERPINOLENE	0,24		
35	20,8	2-HEPTANOL	0,05		
36	21,6	PINOL	0,01		
37	25,0	3-HEXEN-1-OL	0,08		
38	25,6	2-NONANONE	0,05		
39	26,3	FENCHONE	0,01		
40	28,8	α,p-DIMETHYLSTYRENE	0,01		
41	28,9	LINALOOL cis-OXIDE	0,02		
42	29,5	ACETIC ACID	0,02		
43	30,1	α-CUBEBENE	0,03		
44	30,2	Trans-THUYANOL	0,21		
45	30,3	LINALOOL trans-OXIDE	0,02		

**Identification results 2 : LAUREL LEAF CROATIA BATCH L10101**

Peak	RT (min)	Compound name	%	Norm (%)	Allergens (%)
46	30,6	FENCHYL ACETATE	0,01		
47	31,3	YLANGENE	0,02		
48	32,0	$\alpha$ -COPAENE	0,02		
49	34,1	$\beta$ -BOURBONENE	0,01		
50	34,7	$\alpha$ -GURJUNENE	0,02		
51	35,0	<b>LINALOOL</b>	<b>3,89</b>		3,89
52	35,1	Cis-THUYANOL	0,05		
53	35,6	LINALYL ACETATE	0,24		
54	36,5	Cis-p-MENTH-2-EN-1-OL	0,04		
55	37,2	PINOCARVONE	0,02		
56	37,5	BORNYL ACETATE	0,43		
57	37,8	ALIPHATIC ALCOHOL DIACETATE	0,01		
58	38,0	$\beta$ -ELEMENE	0,09		
59	38,5	2-UNDECANONE	0,11		
60	38,7	$\beta$ -CARYOPHYLLENE	0,14		
61	39,1	<b>TERPINENE-4-OL</b>	<b>2,44</b>		
62	39,8	Cis-p-MENTH-2-EN-1-OL	0,01		
63	40,2	4-THUYEN-2- $\alpha$ -YL ACETATE	0,04		
64	40,5	MYRTENAL	0,04		
65	41,2	ALLO-AROMADENDRENE	0,04		
66	41,8	$\delta$ -TERPENYL ACETATE	0,23		
67	42,2	Trans-PINOCARVEOL	0,05		
68	43,1	ZONARENE	0,02		
69	43,2	$\delta$ -TERPINEOL	0,12		
70	43,3	ESTRAGOLE	0,17		
71	43,4	$\alpha$ -HUMULENE	0,05		
72	43,6	NERAL	0,01		0,01
73	44,1	MYRTENYL ACETATE	0,09		
74	44,8	<b>TERPENYL ACETATE</b>	<b>10,04</b>		
75	44,9	$\alpha$ -TERPINEOL	2,19		
76	45,3	TERPENIC ACETATE	0,03		
77	45,5	GERMACRENE D	0,03		
78	45,8	SESQUITERPENE	0,01		
79	46,1	NERYL ACETATE	0,12		
80	46,2	$\alpha$ -MUUROLENE + $\beta$ -SELINENE	0,03		
81	46,4	$\alpha$ -SELINENE	0,01		
82	46,5	CARVYL ACETATE	0,04		
83	47,0	BICYCLOGERMACRENE	0,03		
84	47,1	Trans-PIPERITOL	0,03		
85	47,9	GERANYL ACETATE	0,03		
86	48,0	$\delta$ -CADINENE	0,08		
87	48,3	$\gamma$ -CADINENE	0,03		
88	48,8	$\alpha$ -BISABOLENE	0,02		
89	49,9	CUMINAL	0,02		
90	50,3	MYRTENOL	0,08		

**Identification results 3 : LAUREL LEAF CROATIA BATCH L10101**

Peak	RT (min)	Compound name	%	Norm (%)	Allergens (%)
91	50,5	NEROL	0,35		
92	52,2	DECENYL ACETATE ISOMER	0,02		
93	52,9	CALAMENENE	0,01		
94	53,2	GERANIOL	0,05		0,05
95	53,6	p-CYMENE-8-OL	0,02		
96	55,5	TERPENIC ALCOHOL	0,02		
97	56,0	Epi-CUBEBOL	0,01		
98	58,9	CUBEBOL	0,02		
99	60,4	SESQUITERPENIC EPOXIDE	0,01		
100	61,7	CARYOPHYLLENE EPOXIDE	0,04		
101	62,6	<b>METHYLEUGENOL</b>	<b>2,81</b>		
102	63,4	NEROLIDOL	0,01		
103	64,0	LEDOL	0,01		
104	64,7	SESQUITERPENOL	0,01		
105	67,1	VIRIDIFLOROL	0,01		
106	68,6	SPATHULENOL	0,05		
107	70,1	CINNAMYL ACETATE	0,06		
108	70,6	EUGENOL	1,03		1,03
109	70,9	γ-EUDESOL	0,01		
110	71,8	Trans-METHYLISOEUGENOL	0,11		
111	72,4	CARVACROL	0,02		
112	73,4	ELEMICINE	0,02		
113	73,6	α-EUDESOL	0,01		
114	74,0	β-EUDESOL	0,03		
115	77,0	CARYOPHYLLA-3,7-DIEN-6-OL	0,01		
116	78,7	ISOELEMICINE	0,01		
		<b>TOTAL</b>	<b>99,90</b>		<b>8,38</b>