

Customer :

ESENCIA 1116 SL

**For the attention of Miguel Angel Arribas
Iglesia 1
19268 Algora - Guadalajara
SPAIN**

Sample Nature : ESSENTIAL OIL
Botanical name : LAVANDULA ANGUSTIFOLIA
Sample name : LAVANDA
Batch number : LA2101
Origin : SPAIN
Plant part : FLOWERED HEAD
Our reference : FH71

Receipt : 16/08/2021
Analysis date : 19/08/2021
Packaging : Amber flask of 10 ml
Requested analysis : GChe
Sample storage : 1 year - room temperature

The above information is provided by the customer and sampling is under his responsibility

Comments and conclusions :

**SAMPLE IN COMPLIANCE WITH THE NORM OF
"OTHER ORIGINS" LAVENDER ESSENTIAL OIL ISO 3515 : 2004**

Report validated by :

Daniel Dantin - *Laboratory director*

Report written by :

Louise Lefoulon - *Analyst technic*

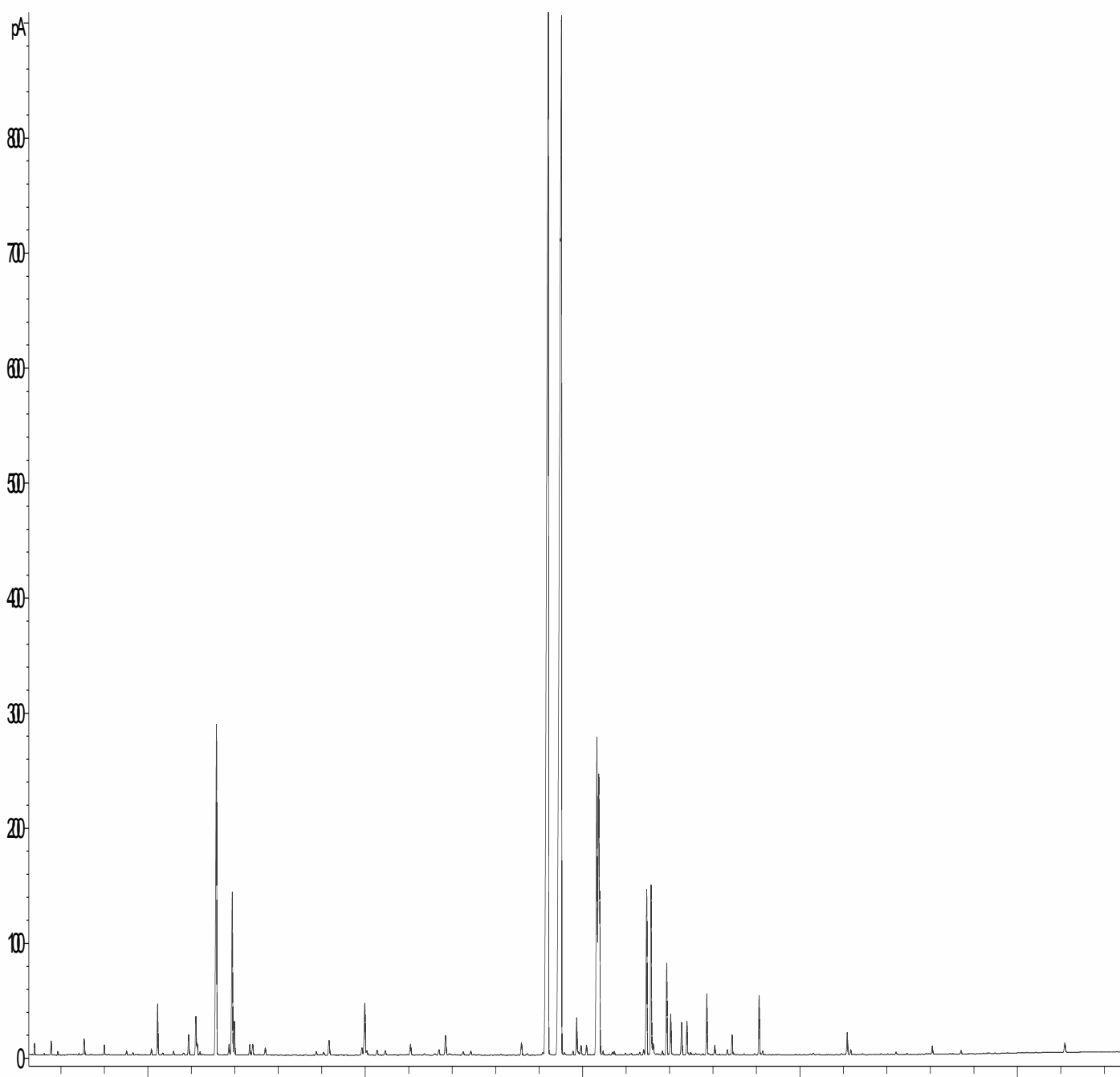
GAS CHROMATOGRAPHY (according to the norm NF ISO 11024)

Analysis conditions :

- . GC/MS Agilent 7890 / 5975 (Black) - Column : VF WAX (polar) 60 m * 0.25 mm * 0.25 µm
- . GC/FID Agilent 6890 – Column : VF WAX (polar) 60 m * 0.25 mm * 0.25 µm
- . Temperature program : (Lav) 65°C - 2°C/min until 80°C - 1°C/min until 110°C - 5°C/min until 250°C - 5 min 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 compounds are identified by a combination of retention times and mass spectra library (our own data commercial database).
- . Percentages are calculated from GC/FID peaks areas without using corrections factors.
- . Peaks identification limit : 0.01 % Peaks integration limit : 0.01 %

Chromatographic profile :

FID1A (ZEESENCA_1168F71.D)



0

20

30

40

50

Identification results : LAVANDA SPAIN - BATCH N° LA2101

Peaks	RT (min)	Compound name	%	Norm (%)
1	5.53	BUTANAL, 2-METHYL-	0.04	
2	5.56	ISOVALERALDEHYDE	0.12	
3	5.86	HEXANE, 1-METHOXY-	0.03	
4	6.83	TRICYCLENE	0.01	
5	7.07	alpha-PINENE	0.21	
6		alpha-THUYENE		
7	8.00	CAMPHENE	0.11	
8	9.02	beta-PINENE	0.04	
9	9.31	SABINENE	0.02	
10	9.50	ALIPHATIC ESTER	0.01	
11	10.16	delta3-CARENE	0.07	
12	10.45	beta-MYRCENE	0.61	
13	10.68	alpha-PHELLANDRENE	0.03	
14	11.18	alpha-TERPINENE	0.05	
15	11.64	ALIPHATIC ALCOHOL	0.03	
16	11.88	LIMONENE	0.27	< 1.0
17	12.21	1,8-CINEOLE	0.54	< 3.0
18	12.27	beta-PHELLANDRENE	0.13	< 1.0
19	12.40	BUTYL BUTYRATE	0.04	
20	12.55	1,3,8-p-MENTHATRIENE	0.02	
21	13.16	cis-beta-OCIMENE	5.22	1.0 - 10
22	13.74	gamma-TERPINENE	0.15	
23	13.88	trans-beta-OCIMENE	2.42	0.5 - 6.0
24	13.98	3-OCTANONE	0.43	< 3.0
25	14.69	m-CYMENE	0.15	
26	14.82	p-CYMENE	0.16	
27	15.40	TERPINOLENE	0.11	
28	17.75	3-OCTANOL ACETATE	0.05	
29	17.93	HEXYL PROPIONATE	0.02	
30	18.08	HEXYL METHYLPROPIONATE	0.05	
31	18.33	1-HEXANOL	0.26	
32	19.84	ALLO-OCIMENE	0.13	
33	19.98	1-OCTEN-3-YL ACETATE	0.88	
34	20.07	3-HEXEN-1-OL	0.07	
35	20.54	3-OCTANOL	0.09	
36	20.92	GALBANOLENE	0.07	
37	21.61	UNDECATRIENE ISOMER	0.01	
38	21.93	BUTYL CAPROATE	0.01	
39	22.08	HEXYL BUTYRATE	0.19	
40	22.71	HEXYL 2-METHYLBUTYRATE	0.03	
41	23.20	COSMENE	0.03	
42	23.39	LINALOOL cis-OXIDE	0.09	
43	23.69	1-OCTEN-3-OL	0.33	
44	23.86	COSMENE ISOMER	0.03	
45	23.93	1-HEPTANOL	0.02	
46	24.12	1,3,5,8-UNDECATETRAENE	0.02	
47	24.50	trans-THUYANOL	0.06	
48	24.85	LINALOOL trans-OXIDE	0.07	
49	24.99	NERYL OXIDE	0.02	

Identification results : LAVANDA SPAIN - BATCH N° LA2101

Peaks	RT (min)	Compound name	%	Norm (%)
50	25.21	OCTYLACETATE	0.02	

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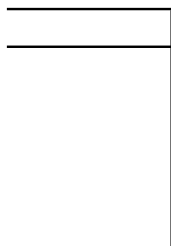
Peaks	RT (min)	Compound name	%	Norm (%)
51	26.24	alpha-COPAENE	0.02	
52	27.18	CAMPHOR	0.20	< 1.5
53	27.45	beta-BOURBONENE	0.03	
54	28.16	BERGAMOTENE ISOMER	0.05	
55	28.42	LINALOOL	29.25	20 - 43
56	29.02	LINALYL ACETATE	33.53	25 - 47
57	29.15	BERGAMOTENE ISOMER	0.03	
58	29.56	alpha-cis-BERGAMOTENE	0.05	
59	29.72	alpha-SANTALENE	0.48	
60	29.79	epsilon-CADINENE	0.05	
61	29.92	BORNYL ACETATE	0.15	
62	30.17	alpha-trans-BERGAMOTENE	0.14	
63	30.49	beta-CUBEBENE	0.01	
64	30.65	TERPINENE-4-OL	5.06	< 8.0
65	30.74	beta-CARYOPHYLLENE	4.50	
66	30.78	LAVANDULYL ACETATE	1.46	< 8.0
67	30.94	HEXYL CAPROATE	0.05	
68	31.21	cis-p-MENTHA-2,8-DIEN-1-OL	0.02	
69	31.36	HEXYL TIGLATE	0.04	
70	31.45	SESQUITERPENE	0.05	
71	31.97	epi-beta-SANTALENE	0.03	
72	32.17	CADINA-3,5-DIENE	0.01	
73	32.24	FARNESENE ISOMER	0.03	
74	32.51	trans-PINOCARVEOL	0.02	
75	32.62	FARNESENE ISOMER	0.04	
76	32.80	FARNESENE ISOMER	0.07	
77	32.95	E-beta-FARNESENE	2.37	
78		CRYPTONE		
79	33.15	LAVANDULOL	2.33	< 3.0
80	33.24	alpha-HUMULENE	0.20	
81	33.42	SESQUITERPENE	0.03	
82	33.52	ALIPHATIC ALCOHOL	0.02	
83	33.67	Z-beta-FARNESENE	0.06	
84	33.87	alpha-TERPINEOL	1.20	< 2.0
85	34.05	BORNEOL	0.60	
86	34.14	VERBENONE	0.02	
87	34.35	MENTHADIENOL ISOMER	0.02	
88	34.55	GERMACRENE D	0.49	
89	34.79	NERYL ACETATE	0.46	
90	34.97	beta-BISABOLENE	0.05	
91	35.20	CARVONE	0.03	
92	35.31	BICYCLOGERMACRENE	0.03	
93	35.53	E,E-alpha-FARNESENE	0.02	
94	35.71	GERANYL ACETATE	0.75	
95	35.79	PYRANIC LINALOOL cis-OXIDE	0.03	
96	35.96	delta-CADINENE	0.01	
97	36.07	gamma-CADINENE	0.15	
98	36.29	SESQUITERPENE	0.02	
99	36.65	CUMINAL	0.08	

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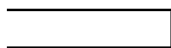
Peaks	RT (min)	Compound name	%	Norm (%)
100	36.87	NEROL	0.27	

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Peaks	RT (min)	Compound name	%	Norm (%)
101	36.98	ALIPHATIC ESTER	0.02	
102	37.10	ALIPHATIC ESTER	0.01	
103	37.43	3,5,7-OCTATRIENE-2-OL, E,E-2,6-DIMETHYL-	0.02	
104	37.91	trans-CARVEOL	0.02	
105	38.11	GERANIOL	0.78	
106	38.28	p-CYMENE-8-OL	0.06	
107	38.39	COMPOUND Mw=138	0.01	
108	38.59	COMPOUND Mw=138	0.01	
109	38.89	ALIPHATIC ESTER	0.02	
110	40.61	HUMULENE EPOXIDE	0.03	
111	41.91	ISOCARYOPHYLLENE EPOXIDE	0.02	
112	42.17	CARYOPHYLLENE EPOXIDE	0.31	
113	42.33	alpha-PHOTOSANTALOL A	0.06	
114	42.88	NEROLIDOL	0.02	
115	43.73	CUBENOL	0.02	
116	44.04	COMPOUND Mw=218	0.01	
117	44.42	CUMINOL	0.04	
118	44.92	PENTADECANONE TRIMETHYL	0.01	
119	45.81	EUGENOL	0.02	
120	46.08	T-CADINOL	0.11	
121	47.41	GERANYL-alpha-TERPINENE	0.05	
122	52.18	COUMARIN	0.17	
		TOTAL	99.96	



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abase and NIST



_____ ml

Allergens (%)

Allergens (%)

Allergens (%)
0.78
0.02
0.17
30.49