

Internal Code: A / 10413



Customer Identification

Company Name	ChromEssence	Address	
Commercial Name			Pompeu Fabra,25. Pol. Ind. Can Illa.
Phones	+34 931 993 474		La Garriga, 08530
Fax			BARCELONA 0 (España)

Sample Identification

Product Name	Lavandin Super Spain Es.Oil	Date Received	28/04/2025 12:16
Product Type	Essential oils (Without norms)	Report Issue Date	27/05/2025 10:58
Botanical Name	<i>Lavandula angustifolia mill. X lavandula latifolia medik</i>		
Customer Code	2038094		
Batch	Lavandin Super 2025	Norm/Specification	Internal
Label name	LAVANDIN SUPER OIL ORGANIC		

Quality Control of Essential Oils

Organoleptic Analysis

Test	Results	Units	Specification	Method	S.O.P.
Aspect	Complies.		Light yellow liquid.	Visual	
Olfactory Profile	Complies.		Herbaceous, lavender-like, slightly camphoraceous	Panel	

Physico-Chemical Analysis

Test	Results	Units	Specification	Method	S.O.P.
Relative Density (20/20)	0.892		0.886 - 0.896	UNE 84156	1.00-N8.5
Refractive Index (20°C)	1.459		1.456 - 1.461	ISO 280	2.00-N8.5
Optical Rotation (20°C)	-7.3	°	-9.00 / -6.00	ISO 592	3.00-N8.5

Chromatographic Analysis

Essential Oils Characterization

Method: Internal + ISO 7609

Technique: GC-FID + GC-MS.

Components are identified by GC-MS, being processed by a deconvolution algorithm, and quantified by GC-FID, using the internal normalization method.

Acquisition through two chromatographs in parallel (one with polar column and the other apolar), to ensure the resolution of all components with high reliability. All the data obtained from both lines are processed by an algorithm that select the most accurate ones.

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Operating Conditions:

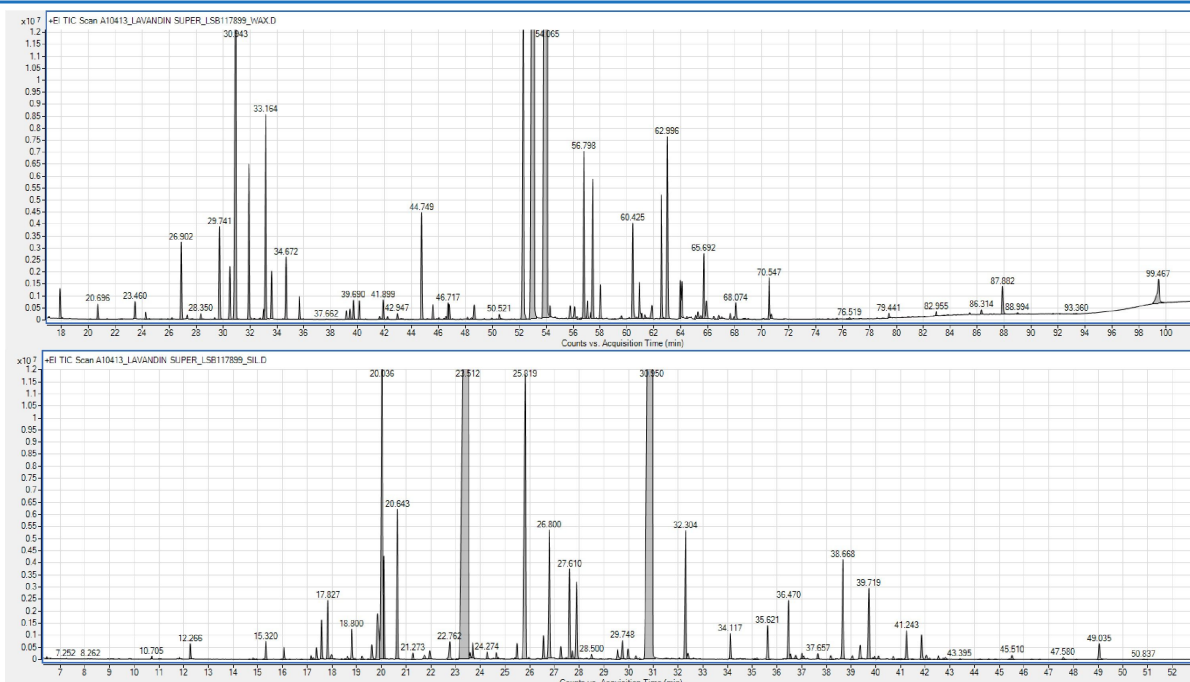
POLAR COLUMN EQUIPMENT: GC (FID) 8890 / MS 5977B. Column: DB_WAX UI 60m x 0.25mm x 0.5 µm. Flow: 1.6 ml/min. Carrier gas: Helium.
Injection: 1.0 µl (FID), 1.0 µl (MSD). Dil. 1:10. Split 100:1. Mass Range: 33 to 350.
Temperature Program: 6 min at 50°C -> 2°C/min to 190°C -> 4°C/min to 220°C -> 10 min at 220°C -> 4°C/min to 240°C -> 10 min at 240°C

APOLAR COLUMN EQUIPMENT: GC (FID) 8890 / MS 5977B. Column: HP-5MS Ultra Inert 60m x 0.25mm x 0.25 µm. Flow: 1.5 ml/min. Carrier gas: Helium.
Injection: 1.0 µl (FID), 1.0 µl (MSD). Dil. 1:10. Split 100:1. Mass Range: 33 to 350 up to minute 66, 50 to 500 up to the end.
Temperature Program: 0 min at 50°C -> 3°C/min to 220°C -> 10°C/min to 285°C -> 9 min at 285°C

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Chromatogram



RI-WAX	RI-HP5	Compounds	CAS N°	%	Specification	Chemical Family	IFRA Restriction
911	676	Isovaleraldehyde	590-86-3	0.02		Aliphatic aldehyde	
955	819	Methyl Hexyl Ether	4747-07-3	0.03		Aliphatic ether	
1009	924	Tricyclene	508-32-7	0.01		Monoterpene	
1025	933	Alpha-Pinene	80-56-8	0.19		Monoterpene	Cosmetic Allergen/ Dermal Sensitization
1069	953	Camphene	79-92-5	0.14		Monoterpene	
1090	796	n-Hexanal	66-25-1	0.01		Aliphatic aldehyde	
1114	978	Beta-Pinene	127-91-3	0.14		Monoterpene	Cosmetic Allergen
1126	972	Sabinene	3387-41-5	0.05		Monoterpene	
1158	1009	Delta-3-Carene	13466-78-9	0.01		Monoterpene	
1165	991	Beta-Myrcene	123-35-3	0.65		Monoterpene	
1170	997	Alpha-Phellandrene	99-83-2	0.03		Monoterpene	
1206	1021	Limonene	5989-27-5	0.72	0.10 - 1.50	Monoterpene	Cosmetic Allergen/ Dermal sensitization
1214	1006	Cis-Dehydrolinalool Oxide	54750-69-5	<0.01		Monoterpenic Epoxide	
1218	1031	Beta-Phellandrene	555-10-2	0.40		Monoterpene	
1222	1039	1,8-Cineole	470-82-6	5.09	1.20 - 10.50	Monoterpenic ether	
1238	1035	Cis-Beta-Ocimene	3338-55-4	1.09	0.30 - 3.00	Monoterpene	

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1254	1058	Gamma-Terpinene	99-85-4	0.05		Monoterpene	
1256	1046	Trans-Beta Ocimene	3779-61-1	1.85	0.40 - 3.50	Monoterpene	
1262	986	3-Octanone	106-68-3	0.46	Max. 1.50	Aliphatic ketone	
1278	1025	Para-Cymene	99-87-6	0.14		Monoterpene	
1282	999	Hexyl Acetate	142-92-7	0.28		Aliphatic Ester	
1291	1086	Alpha-Terpinolene	586-62-9	0.16		Monoterpene	Cosmetic Allergen
1300	1006	n-Octanal	124-13-0	0.01		Aliphatic aldehyde	
1342	1120	Octan-3-yl Acetate	4864-61-3	0.07		Aliphatic Ester	
1350	1106	Hexyl Propanoate	2445-76-3	0.08		Aliphatic Ester	
1352	1150	Hexyl Isobutyrate	2349-07-7	0.15		Aliphatic Ester	
1361	849	Trans-3-Hexenol	928-97-2	0.03		Aliphatic alcohol	
1365	861	n-Hexanol	111-27-3	0.20		Aliphatic alcohol	
1384	1129	Alloocimene	7216-56-0	0.02		Monoterpene	
1387	1086	1-Octen-3-yl Acetate	2442-10-6	0.15		Monoterpenic ester	Dermal Sensitization
1400	995	3-Octanol	589-98-0	0.05		Aliphatic alcohol	
1427	1195	Hexyl Butyrate	2639-63-6	0.79	0.04 - 1.50	Aliphatic Ester	
1438	1239	Hexyl 2-Methyl Butyrate	10032-15-2	0.11		Aliphatic Ester	
1452	1243	Hexyl Isovalerate	10032-13-0	0.11		Aliphatic Ester	
1453	505	Acetic Acid	64-19-7	0.01		Carboxylic Acid	
1460	1070	Cis-Linalool Oxide (Furanoid)	5989-33-3	0.09		Monoterpenic Epoxide	
1550	1105	Cis-Sabinene Hydrate	17699-16-0	0.02		Monoterpenic alcohol	
1482	1214	Octyl Acetate	112-14-1	0.05		Monoterpenic ester	
1510	1384	Daucene	16661-00-0	0.06		Sesquiterpene	
1541	1149	Camphor	76-22-2	4.57	3.00 - 8.50	Monoterpenic ketone	Cosmetic Allergen
1550	1410	Sesquithujene	58319-06-5	0.06		Sesquiterpene	
1553	1100	Linalool	78-70-6	35.14	26.00 - 38.00	Monoterpenic alcohol	Cosmetic Allergen/Dermal Sensitization
1558	1255	Linalyl Acetate	115-95-7	34.87	19.00 - 45.00	Monoterpenic ester	Cosmetic Allergen
1588	1418	Alpha-Santalene	512-61-8	0.01		Sesquiterpene	
1596	1432	Trans-Alpha Bergamotene	13474-59-4	0.06		Sesquiterpene	
1599	1288	Bornyl Acetate	76-49-3	0.06		Monoterpenic ester	
1600	1227	Bornyl Formate	7492-41-3	0.12		Monoterpenic ester	

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1609	1108	Hotrienol	20053-88-7	0.04		Monoterpenic alcohol	
1617	1450	Trans-Beta Caryophyllene	87-44-5	1.28		Sesquiterpene	Cosmetic Allergen
1619	1284	Lavandulyl Acetate	25905-14-0	1.32	0.60 - 2.50	Monoterpenic ester	
1622	1184	Terpinen-4-ol	562-74-3	0.15	0.01 - 3.10	Monoterpenic alcohol	
1630	1391	Octyl Butyrate	110-39-4	0.01		Monoterpenic ester	
1637	1329	Hexyl Tiglate	16930-96-4	0.26		Aliphatic Ester	
1669	1165	Lavandulol	498-16-8	0.31	0.10 - 1.60	Monoterpenic alcohol	
1676	1452	Trans-Beta Farnesene	18794-84-8	0.84	0.45 - 1.70	Sesquiterpene	
1687	1473	Carota-5,8-diene	142928-08-3	0.03		Sesquiterpene	
1694	1454	Alpha-Humulene	6753-98-6	0.04		Sesquiterpene	
1696	1195	Alpha-Terpineol	98-55-5	0.97		Monoterpenic alcohol	Cosmetic Allergen
1700	1187	Cryptone	500-02-7	0.11		Aliphatic ketone	
1713	1167	Borneol	507-70-0	1.63	1.50 - 5.00	Monoterpenic alcohol	
1715	1485	Germacrene D	23986-74-5	0.38		Sesquiterpene	
1723	1361	Neryl Acetate	141-12-8	0.34		Monoterpenic ester	
1731	1506	Beta-Bisabolene	495-61-4	0.02		Sesquiterpene	
1734	1277	Phellandral	21391-98-0	0.01		Monoterpenic aldehyde	
1756	1504	Isodaucene	142878-08-8	0.03		Sesquiterpene	
1758	1380	Geranyl Acetate	105-87-3	0.61		Monoterpenic ester	Cosmetic Allergen
1769	1501	Lavandulyl Isovalerate	51117-21-6	0.28		Sesquiterpenic Ester	
1782	1515	Gamma-Cadinene	39029-41-9	0.04		Sesquiterpene	
1789	1247	Cuminaldehyde	122-03-2	0.05		Monoterpenic aldehyde	Dermal Sensitization
1792	1229	Nerol	106-25-2	0.21		Monoterpenic alcohol	
1806	1209	Alpha-Campholenol	1901-38-8	0.02		Monoterpenic alcohol	
1853	1255	Geraniol	106-24-1	0.50		Monoterpenic alcohol	Cosmetic Allergen/ Dermal Sens. and Systemic Tox.
2014	1578	Caryophyllene Oxide	1139-30-6	0.06		Sesquiterpenic Epoxide	
2111	1291	Para-Cymen-7-ol	536-60-7	0.05		Monoterpenic alcohol	Dermal Sens. and Systemic Tox.
2192	1640	Tau-Cadinol	5937-11-1	0.05		Sesquiterpenic alcohol	
2226	1701	Alpha-Bisabolol	23089-26-1	0.23		Sesquiterpenic alcohol	Dermal Sens. and Systemic Tox.
2469	1454	Coumarin	91-64-5	0.22		Aromatic Ester	Cosmetic Allergen/ S.Toxicity
Total Identified (%)		98.50					
Total Area:		1.8E+7					

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Conclusion

The batch meets specifications for Lavandin Super Es. Oil origin Spain.

Some biomarkers are a bit lower than usual.

In the olfactory profile, the sample is slightly less powerful than previous samples, but it fits the specifications.

Checked & Approved by:

Luciano Colombina
GC/MS Analyst

