



Aromatic Plant Research Center

We provide uncompromising
quality control for your products.

Customer: doTERRA International

Lot Number: 172066

Date Filled: 7/25/2017

Column: ZB5 (60 m length × 0.25 mm inner diameter × 0.25 µm film thickness)

Instrument: Shimadzu GCMS-QP2010 Ultra

Carrier gas: Helium 80 psi

Temperature ramp: 2 degrees celsius per minute up to 260-degrees celsius

Split ratio: 30:1

Sample preparation: 5%w/v solution with Dichloromethane.



Comments:

The analysis of this Lavender lot revealed no contaminants or adulteration.

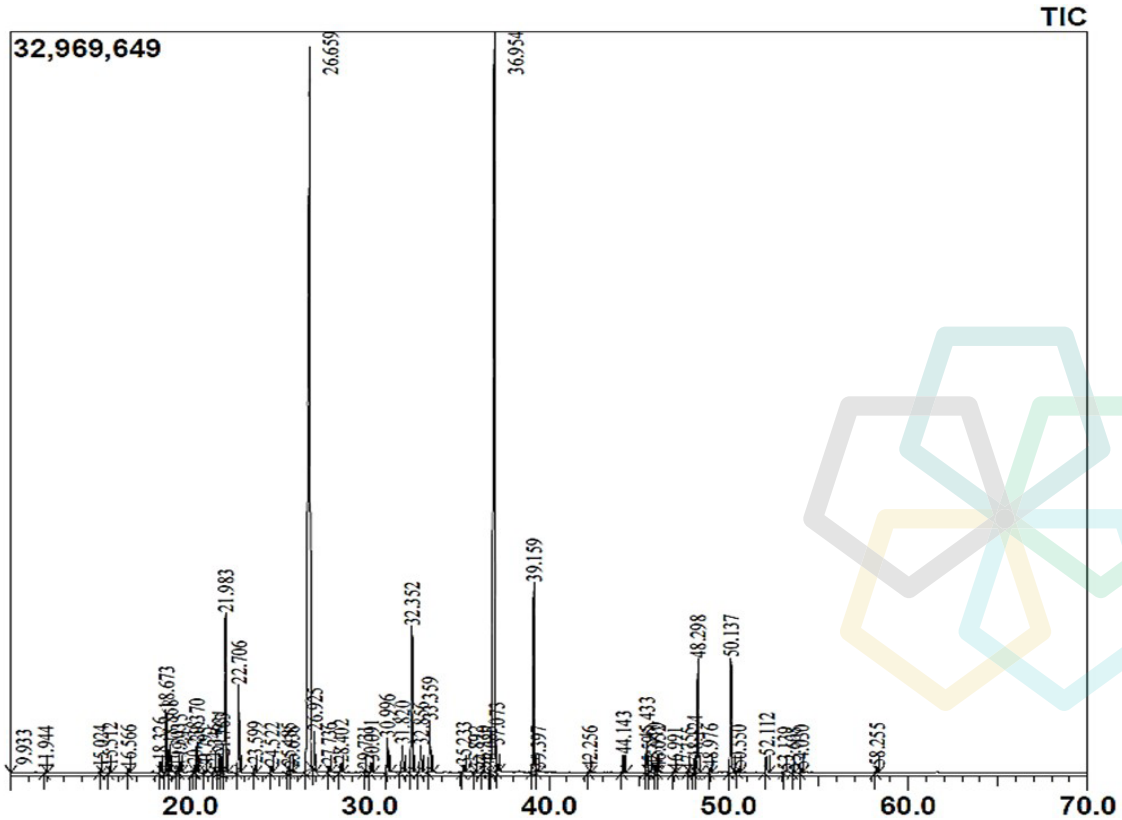
The sample meets the expected chemical profile for authentic essential oils of *Lavandula angustifolia*.



Lavender Essential Oil

Customer: doTERRA International
 Lot Number: 172066
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Chromatogram



Peak Report

Ret.Time	Compound Name	Area %	Ret.Time	Compound Name	Area %	Ret.Time	Compound Name	Area %
9.933	1-methoxy-Hexane	0.13	25.638	trans-Linalool oxide (furanoid)	0.07	44.143	Neryl acetate	0.47
11.944	n-Hexanol	0.07	26.659	Linalool	34.15	45.433	Geranyl acetate	0.85
15.024	alpha-Thujene	0.09	26.925	1-Octen-3-yl acetate	0.9	45.595	Daucene	0.04
15.512	alpha-Pinene	0.13	27.736	3-Octanol acetate	0.15	45.91	Hexyl hexanoate	0.18
16.566	Camphene	0.09	28.402	allo-Ocimene	0.22	46.052	7-epi-Sesquihujene	0.09
18.326	1-Octen-3-ol	0.26	29.731	Hexyl isobutanoate	0.06	46.991	Sesquihujene	0.04
18.673	3-Octanone	1.43	30.091	Camphor	0.26	47.755	alpha-cis-Bergamotene	0.04
18.868	Myrcene	0.63	30.996	Lavandulol	0.91	48.124	alpha-Santalene	0.4
19.303	Butyl butanoate	0.11	31.82	Borneol	0.75	48.298	trans-Caryophyllene	3.26
19.415	3-Octanol	0.33	32.352	Terpinen-4-ol	4	48.976	trans-alpha-Bergamotene	0.12
20.238	3-Carene	0.14	32.856	Hexyl butanoate	0.75	50.137	trans-beta-Farnesene	3.23
20.37	Hexyl acetate	0.68	33.359	alpha-Terpineol	1.37	50.55	alpha-Humulene	0.09
20.795	alpha-Terpinene	0.04	35.233	Nerol	0.19	52.112	Gamma-macrolide D	0.48
21.346	para-Cymene	0.11	35.892	Hexyl 2-methyl butanoate	0.06	53.139	Lavandulyl isovalerate	0.04
21.631	Limonene	0.45	36.33	Hexyl isovalerate	0.09	53.608	beta-Bisabolene	0.04
21.783	beta-Phellandrene	0.37	36.685	Cumin aldehyde	0.07	54.03	delta-Amorphene	0.11
21.983	cis-beta-Ocimene	4.67	36.954	Linalyl acetate	28.23	58.255	Caryophyllene oxide	0.16
22.706	trans-beta-Ocimene	2.09	37.073	Geraniol	0.52			
23.599	gamma-Terpinene	0.18	39.159	Lavandulyl acetate	5.18			
24.522	cis-Linalool oxide (furanoid)	0.16	39.397	Bornyl acetate	0.07			
25.485	Terpinolene	0.14	42.256	Hexyl tiglate	0.08			
								Area Total: 100

Comments:

The analysis of this Lavender lot revealed no contaminants or adulteration. The sample meets the expected chemical profile for authentic essential oils of *Lavandula angustifolia*.

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