



Aromatic Plant Research Center

We provide uncompromising
quality control for your products.

Customer : doTERRA International
Lot Number : 2315013
Date Filled : 05/30/2023

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 Oregano lot revealed no contaminants or adulteration.
The sample meets the expected chemical profile for authentic essential oils of *Origanum vulgare*.

Analysied by : Ambika Poudel
Reviewed by : Dr. Prabodh Satyal



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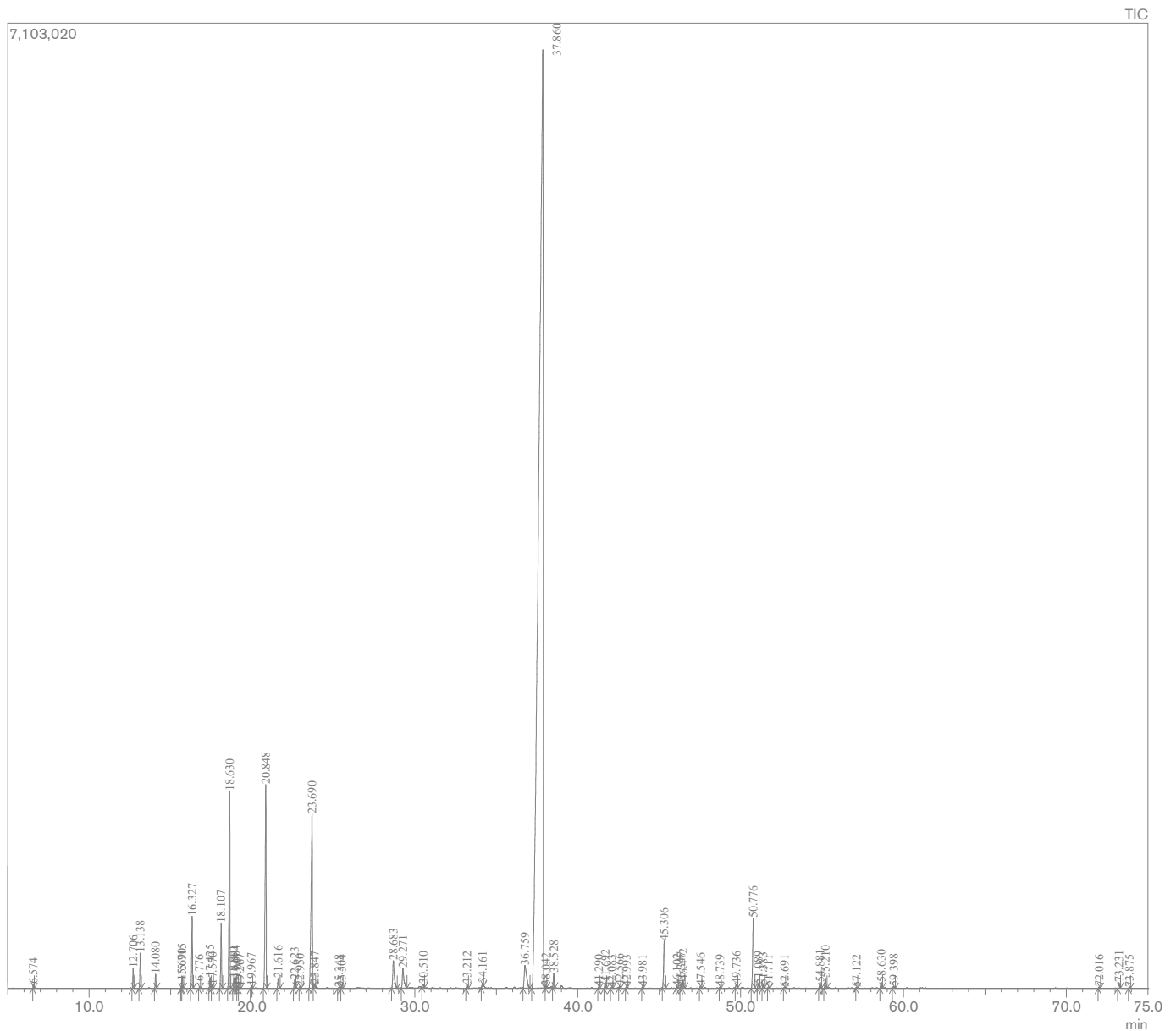
Oregano Essential Oil

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Chromatogram



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Peak Report

Peak#	R.Time	Name	Area%
1	6.574	Methyl alpha-methyl butyrate	0.04
2	12.706	alpha-Thujene	0.27
3	13.138	alpha-Pinene	0.47
4	14.080	Camphene	0.20
5	15.690	beta-Pinene	0.04
6	15.715	1-Octen-3-ol	0.16
7	16.327	Myrcene	1.06
8	16.776	3-Octanol	0.01
9	17.425	alpha-Phellandrene	0.16
10	17.570	delta-3-Carene	0.06
11	18.107	alpha-Terpinene	1.01
12	18.630	para-Cymene	3.45
13	18.891	Limonene	0.17
14	19.004	beta-Phellandrene	0.16
15	19.097	1,8-Cineole	0.04
16	19.267	cis-beta-Ocimene	0.03
17	19.967	trans-beta-Ocimene	0.05
18	20.848	gamma-Terpinene	3.91
19	21.616	cis-Sabinene hydrate	0.18
20	22.623	Terpinolene	0.13
21	22.950	para-Cymenene	0.03
22	23.690	Linalool	4.34
23	23.847	Hotrienol	0.08
24	25.348	cis-para-Menth-2-en-1-ol	0.02
25	25.504	alpha-Campholenal	0.03
26	28.683	Borneol	0.83
27	29.271	Terpinen-4-ol	0.58
28	30.510	alpha-Terpineol	0.07
29	33.212	Carvacrol methyl ether	0.07
30	34.161	Carvone	0.07
31	36.759	Thymol	1.02
32	37.860	Carvacrol	77.27
33	38.042	Oregano sesquiterpenoid 1	0.03
34	38.528	Methyl non-8-enoate	0.24
35	41.290	Neryl acetate	0.02
36	41.692	Carvacryl acetate	0.11
37	42.083	2-Allyl-para-cresol	0.02
38	42.566	Geranyl acetate	0.03
39	42.993	beta-Bourbonene	0.02
40	43.981	Methyl eugenol	0.02
41	45.306	beta-Caryophyllene	0.94
42	46.102	trans-alpha-Bergamotene	0.02
43	46.347	Oregano sesquiterpenoid 2	0.06
44	46.472	Aromadendrene	0.14
45	47.546	alpha-Humulene	0.04
46	48.739	trans-Cadina-1(6),4-diene	0.02
47	49.736	Viridiflorene	0.08
48	50.776	beta-Bisabolene	1.37
49	51.089	gamma-Cadinene	0.09
50	51.383	delta-Cadinene	0.06
51	51.711	beta-Sesquiphellandrene	0.03
52	52.691	trans-alpha-Bisabolene	0.02
53	54.881	Spathulenol	0.13
54	55.210	Caryophyllene oxide	0.20
55	57.122	1,10-Di-epi-cubenol	0.02
56	58.630	epi-alpha-Cadinol	0.12
57	59.398	14-Hydroxy-9-epi-cis-caryophyllene	0.04
58	72.016	Oregano sesquiterpenoid 3	0.02
59	73.231	Oregano sesquiterpenoid 4	0.11
60	73.875	Oregano sesquiterpenoid 5	0.02
			100.00

