

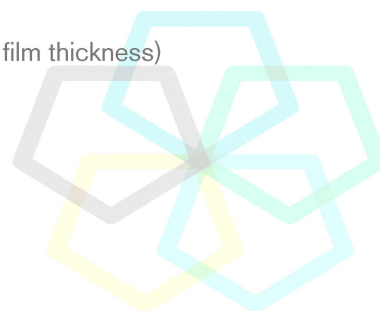


Aromatic Plant Research Center

We provide uncompromising
quality control for your products.

Customer : doTERRA International
Lot Number : 2111313
Date Filled : 04/23/2021

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 Lemongrass lot revealed no contaminants or adulteration.
The sample meets the expected chemical profile for authentic essential oils of *Cymbopogon flexuosus*.

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



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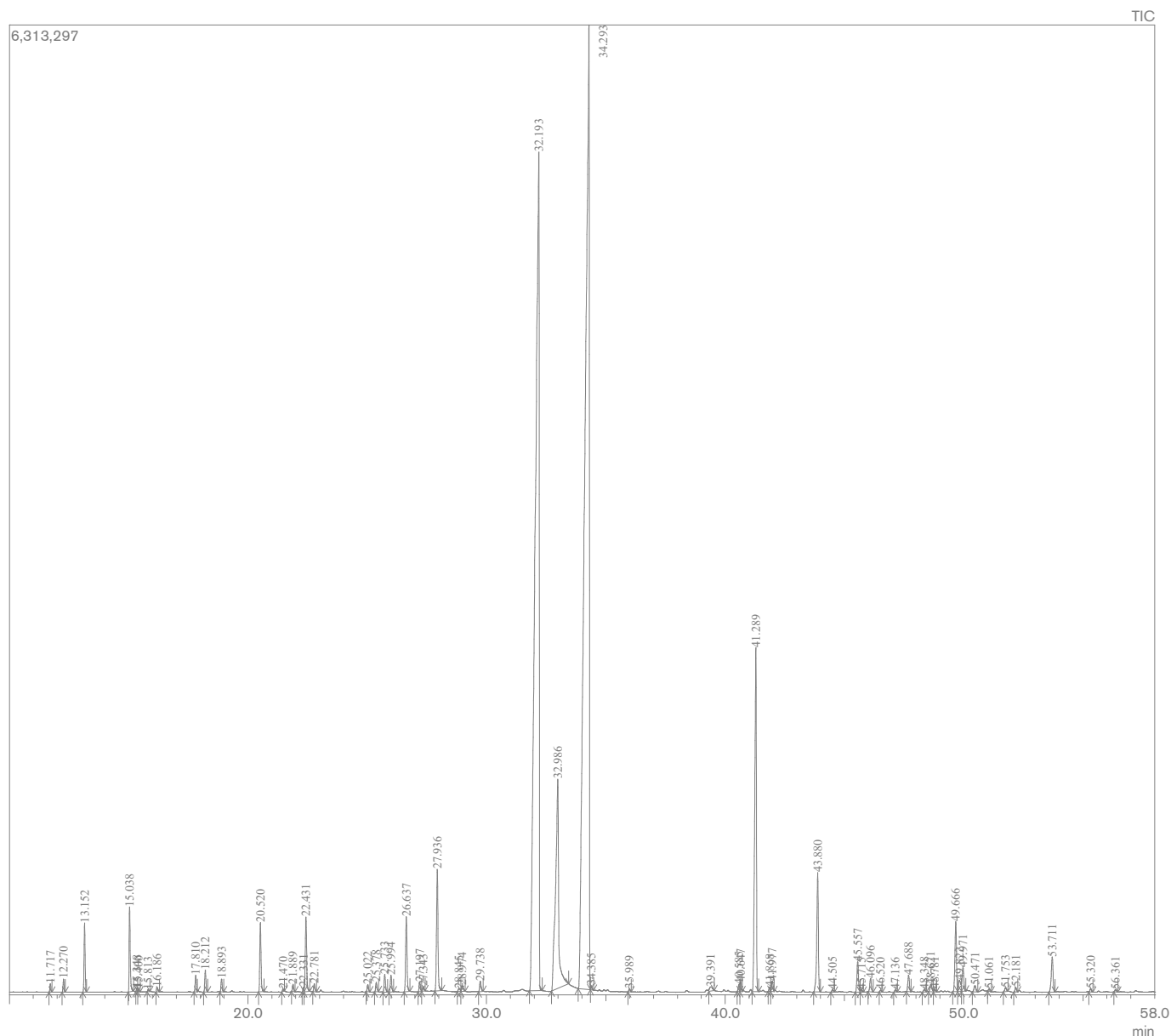
Lemongrass Essential Oil

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Chromatogram



Peak Report

Peak#	R.Time	Name	Area%
1	11.717	Tricyclene	0.08
2	12.270	alpha-Pinene	0.12
3	13.152	Camphene	0.69
4	15.038	6-Methyl-5-hepten-2-one	0.90
5	15.348	Myrcene	0.04
6	15.400	Dehydro-1,8-Cineole	0.03
7	15.813	trans-Dehydroxy linalool oxide	0.02
8	16.186	n-Octanal	0.06
9	17.810	Limonene	0.19
10	18.212	cis-beta-Ocimene	0.25
11	18.893	trans-beta-Ocimene	0.15
12	20.520	2-Nonanone	0.82
13	21.470	Terpinolene	0.03
14	21.889	Rosefuran	0.09
15	22.331	Perillene	0.05
16	22.431	Linalool	0.98
17	22.781	alpha-Pinene oxide	0.10
18	25.022	Epiphotocitral A	0.09
19	25.378	exo-Isocitral	0.13
20	25.733	trans-Chrysanthanal	0.23
21	25.994	Citronellal	0.22
22	26.637	cis-Isocitral	1.00
23	27.197	Rosefuran epoxide	0.13
24	27.343	Borneol	0.06
25	27.936	trans-Isocitral	1.68
26	28.845	Oxy citral	0.06
27	28.974	alpha-Terpineol	0.10
28	29.738	n-Decanal	0.15
29	32.193	Neral	32.05
30	32.986	Geraniol	6.42
31	34.293	Geranial	41.27
32	34.385	4-Undecanone	0.05
33	35.989	Geranyl formate	0.04
34	39.391	Neric acid	0.11
35	40.585	Cyclosativene	0.10
36	40.647	alpha-Ylangene	0.13
37	41.289	Geranyl acetate	5.51
38	41.868	beta-Cubebene	0.06
39	41.977	beta-Elemene	0.16
40	43.880	beta-Caryophyllene	1.83
41	44.505	beta-Copaene	0.04
42	45.557	trans-Isoeugenol	0.45
43	45.715	trans-Muurola-3,5-diene	0.04
44	46.096	alpha-Humulene	0.20
45	46.520	cis-Muurola-4(14),5-diene	0.03
46	47.136	trans-Cadina-1(6),4-diene	0.03
47	47.688	Germacrene D	0.24
48	48.348	trans-Muurola-4(14),5-diene	0.04
49	48.621	epi-Cubebol	0.14
50	48.781	alpha-Murolene	0.04
51	49.666	gamma-Cadinene	1.05
52	49.822	Cubebol	0.23
53	49.971	delta-Cadinene	0.39
54	50.471	trans-gamma-Bisabolene	0.11
55	51.061	alpha-Cadinene	0.03
56	51.753	alpha-Elemol	0.06
57	52.181	Geranyl butanoate	0.06
58	53.711	Caryophyllene oxide	0.60
59	55.320	Humulene epoxide II	0.05
60	56.361	1-epi-Cubenol	0.03
			100.00

