

Sample Information

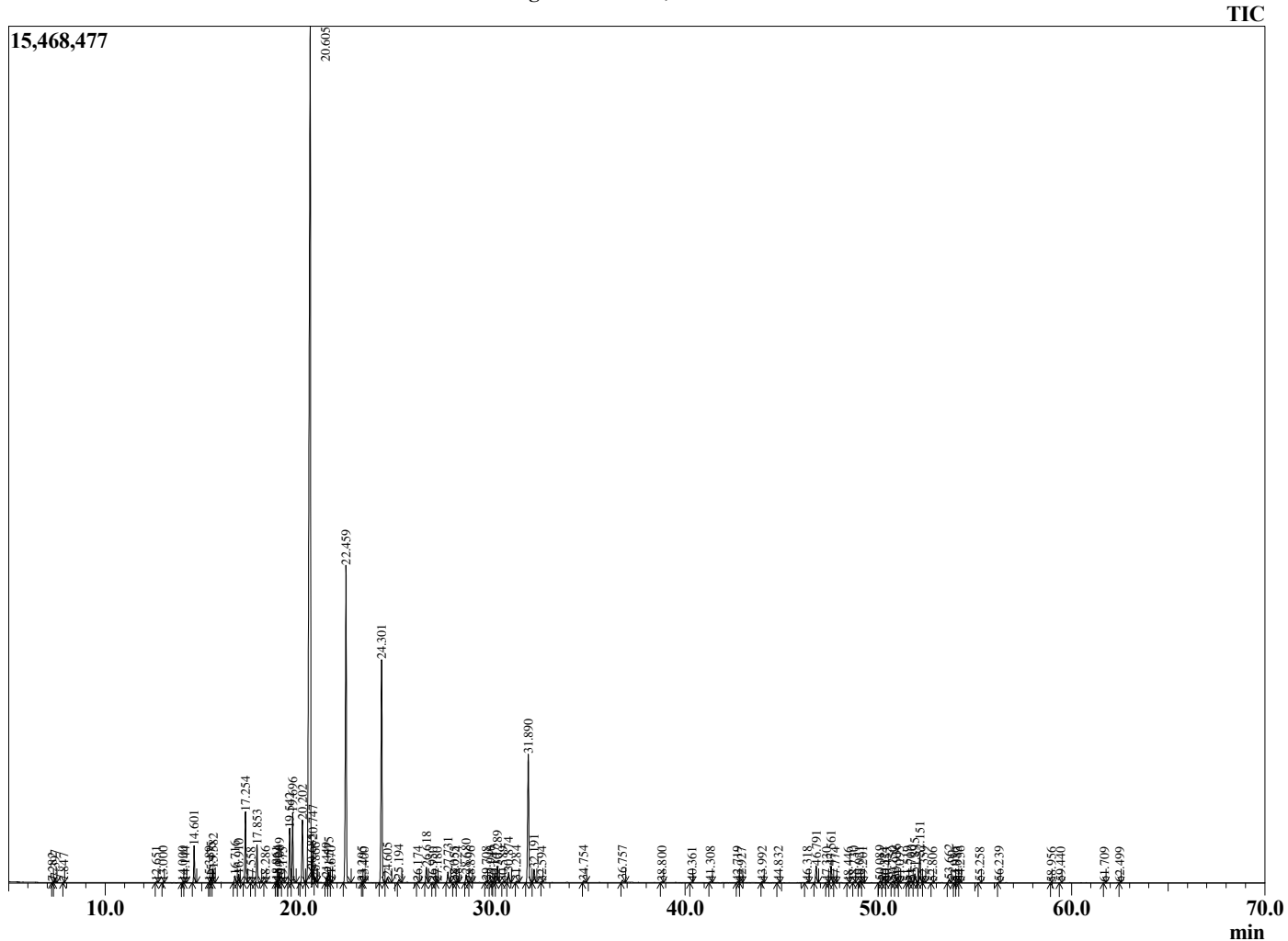
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 6/24/2021 4:39:03 PM
 Sample Type : Essential Oil
 Sample Name : Lime Oil, Distilled - Barefut
 Sample ID : 0110
 Injection Volume : 0.10
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
7.282	Limediene isomer	0.02
7.397	Limediene	0.09
7.847	Limediene isomer	0.01
12.651	Nonane	0.03
13.000	Bornylene	0.02
14.000	Tricyclene	0.02
14.144	alpha-Thujene	0.03
14.601	alpha-Pinene	1.20
15.389	Unidentified	0.01
15.475	alpha-Fenchene	0.18
15.582	Camphene	0.45
16.716	Bois de Rose oxide	0.25
16.910	Sabinene	0.29
17.254	beta-Pinene	2.43
17.558	Unidentified	0.01
17.853	Myrcene	1.35
18.286	Unidentified	0.03
18.861	Pseudolimonene	0.04
18.924	Unidentified	0.05
19.009	alpha-Phellandrene	0.34
19.175	delta-3-Carene	0.02
19.542	1,4-Cineole	1.98
19.696	alpha-Terpinene	2.57
20.202	para-Cymene	2.56
20.605	Limonene	48.37
20.685	beta-Phellandrene	0.03
20.747	1,8-Cineole	1.05
20.866	(Z)-beta-Ocimene	0.13
21.449	2,2-Dimethyl-, 5-(1-methylpropenyl)-tetrahyd	0.17
21.575	(E)-beta-Ocimene	0.39
21.670	Unidentified	0.04
22.459	gamma-Terpinene	12.78
23.295	Unidentified	0.02
23.400	Pinol	0.01
24.301	Terpinolene	8.89
24.605	para-Cymenene	0.24
25.194	Linalool	0.15
26.174	1,3,8-para-Menthatriene	0.03
26.618	alpha-Fenchol	0.61
26.950	beta-Fenchol	0.01
27.180	allo-Ocimene	0.02
27.731	Terpin-3-en-1-ol	0.46
28.055	Unidentified	0.03
28.224	Epoxyterpinolene	0.05
28.680	cis-beta-Terpineol	0.35
28.896	Unidentified	0.03
29.708	Isoborneol	0.05
29.946	trans-beta-Terpineol	0.07
30.147	delta-Terpineol	0.03
30.289	Borneol	0.69
30.589	Unidentified	0.02
30.874	Terpinen-4-ol	0.41
31.284	para-Cymen-8-ol	0.07
31.890	alpha-Terpineol	5.60
32.191	gamma-Terpineol	0.57
32.594	Decanal	0.02
34.754	Neral	0.09
36.757	Geranial	0.13
38.800	Unidentified	0.03
40.361	Unidentified	0.03
41.308	delta-Elementene	0.04
42.719	Neryl acetate	0.04

Chromatogram Lime Oil, Distilled - Barefut



Comments:

The analysis of this Lime Oil, Distilled batch sample meets the expected chemical profile for authentic essential oil of *Citrus aurantifolia*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
42.927	Unidentified	0.02
43.992	Geranyl acetate	0.04
44.832	beta-Elemene	0.03
46.318	cis-alpha-Bergamotene	0.05
46.791	trans-beta-Caryophyllene	0.75
47.330	gamma-Elemene	0.02
47.561	trans-alpha-Bergamotene	0.73
47.774	Unidentified	0.03
48.446	Unidentified	0.01
48.730	(E)-beta-Farnesene	0.03
49.021	alpha-Humulene	0.04
49.201	epi-beta-Santalene	0.03
50.089	Selina-4,11-diene	0.08
50.324	gamma-Curcumene	0.02
50.453	Unidentified	0.01
50.750	Unidentified	0.06
50.936	delta-Selinene	0.15
51.095	beta-Selinene	0.03
51.519	alpha-Selinene	0.04
51.700	(Z)-alpha-Bisabolene	0.08
51.895	(E,E)-alpha-Farnesene	0.43
52.151	beta-Bisabolene	1.20
52.359	(Z)-gamma-Bisabolene	0.05
52.806	delta-Cadinene	0.02
53.662	Unidentified	0.14
53.956	Selina-4(15),7(11)-diene	0.02
54.083	(E)-alpha-Bisabolene	0.03
54.236	Selina-3,7(11)-diene	0.03
55.258	Germacrene B	0.02
56.239	Caryolan-8-ol	0.04
58.956	Humulane-1,6-dien-3-ol	0.01
59.440	gamma-Eudesmol	0.02
61.709	Unidentified	0.01
62.499	alpha-Bisabolol	0.01
		100.00