



Essential Oil University

GC/MS Report

Item	Lot
Lime EO Distilled <i>Citrus aurantifolia</i>	4F
Date	Analyst
1/14/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Lime EO Distilled, 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.



Sample Information

Company: Revive**Sample Name:** Lime EO Distilled**Botanical Name:** Citrus aurantifolia**Lot Number:** 4F**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Mexico**Analysis Date:** 1/14/2025**Manufacture Date:** June 2024

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra**Injection Type:** Split**Split Ratio:** 24.4**Column Type:** ZB-5**Injection Volume:** 0.1 µL**Temperature Program:** 2C/min

Physical Data

ANALYSIS

Optical Rotation @20°C

Refractive Index @20°C

Specific Gravity @20°C

METHOD

USP[781]

USP[831]

USP[841]

RESULTS

+38.40

1.47603

0.85939



Ret. Time	Component	Ret. Idx.	Conc. %	
5.739	Limediene isomer	759	0.01%	
5.833	Limediene isomer	763	0.07%	
6.205	Limediene isomer	781	0.01%	
6.612	Octane	800	0%	
10.366	Nonane	900	0.03%	
10.648	Bornylene	905	0.02%	
11.538	Tricyclene	922	0.02%	
11.686	alpha-Thujene	924	0.03%	
12.089	alpha-Pinene	932	1.03%	
12.883	alpha-Fenchene	946	0.17%	
12.976	Camphene	948	0.42%	
14.054	Bois de Rose oxide	968	0.19%	
14.229	Sabinene	971	0.24%	
14.529	beta-Pinene	977	2.38%	
15.010	para-Menth-3-ene	986	0.01%	
15.154	Myrcene	988	1.22%	
15.506	Unidentified	995	0.03%	
16.057	Pseudolimonene	1004	0.05%	
16.124	Unidentified	1005	0.04%	
16.203	alpha-Phellandrene	1006	0.31%	
16.350	delta-3-Carene	1009	0.02%	
16.716	1,4-Cineole	1014	1.73%	
16.859	alpha-Terpinene	1016	2.33%	
17.342	para-Cymene	1024	2.62%	
17.704	Limonene	1029	47.45%	IFRA
17.776	beta-Phellandrene	1031	0.04%	
17.837	1,8-Cineole	1031	0.97%	
18.034	cis-beta-Ocimene	1035	0.13%	
18.569	2,2-Dimethyl-5-(1-methylpropenyl) tetrahydrofuran	1043	0.13%	
18.705	trans-beta-Ocimene	1045	0.37%	
19.510	gamma-Terpinene	1057	13.21%	
20.331	Unidentified	1070	0.03%	
20.385	Unidentified	1071	0.02%	
21.296	Terpinolene	1085	11.05%	
21.490	Fenchone	1088	0.01%	
21.598	para-Cymenene	1089	0.26%	
22.226	Linalool	1099	0.12%	IFRA
23.125	1,3,8-para-Menthatriene	1112	0.03%	
23.541	endo-Fenchol	1118	0.34%	
24.163	allo-Ocimene	1127	0.01%	



Ret. Time	Component	Ret. Idx.	Conc. %	
24.671	Terpin-3-en-1-ol	1135	0.34%	
24.989	Unidentified	1139	0.03%	
25.152	Epoxyterpinolene	1142	0.08%	
25.605	cis-beta-Terpineol	1148	0.25%	
25.893	alpha-Terpineol	1153	0.01%	
26.569	Isoborneol	1162	0.03%	
26.860	trans-beta-Terpineol	1167	0.05%	
27.046	delta-Terpineol	1169	0.03%	
27.154	Borneol	1171	0.6%	
27.441	Unidentified	1175	0.02%	
27.757	Terpinen-4-ol	1180	0.31%	
28.191	para-Cymen-8-ol	1186	0.07%	
28.780	alpha-Terpineol	1195	6.11%	
29.088	gamma-Terpineol	1199	0.36%	
29.557	Decanal	1206	0.02%	
31.686	Neral	1237	0.11%	IFRA
32.521	Unidentified	1250	0.01%	
33.700	Geranial	1267	0.16%	IFRA
34.118	cis-Ascaridol glycol	1273	0.01%	
34.446	Unidentified	1278	0.01%	
35.301	trans-Ascaridol glycol	1290	0.01%	
37.268	Unidentified	1320	0.02%	
38.195	delta-Elemene	1334	0.04%	
39.725	Neryl acetate	1358	0.11%	
40.825	Unidentified	1374	0%	
41.009	Geranyl acetate	1377	0.06%	
41.727	beta-Elemene	1388	0.03%	
43.235	cis-alpha-Bergamotene	1412	0.04%	
43.627	beta-Caryophyllene	1418	0.64%	
44.255	gamma-Elemene	1428	0.02%	
44.490	trans-alpha-Bergamotene	1432	0.81%	
44.692	beta-Duprezianene	1435	0.02%	
44.956	Unidentified	1439	0.01%	
45.734	trans-beta-Farnesene	1452	0.04%	
45.867	alpha-Humulene	1454	0.05%	
46.115	epi-beta-Santalene	1458	0.03%	
46.981	Selina-4,11-diene	1472	0.06%	
47.260	Unidentified	1476	0.01%	
47.343	Unidentified	1478	0.01%	
47.657	Unidentified	1483	0.07%	



Ret. Time	Component	Ret. Idx.	Conc. %	
47.836	delta-Selinene	1486	0.14%	
47.949	beta-Selinene	1487	0.02%	
48.385	alpha-Selinene	1494	0.05%	
48.566	Unidentified	1497	0.01%	
48.693	cis-alpha-Bisabolene	1499	0.07%	
48.921	trans,trans-alpha-Farnesene	1503	0.35%	
49.126	beta-Bisabolene	1507	1.14%	
49.295	cis-gamma-Bisabolene	1509	0.04%	
49.465	Unidentified	1512	0%	
49.741	delta-Cadinene	1517	0.03%	
50.063	Unidentified	1522	0.01%	
50.246	trans-gamma-Bisabolene	1525	0.01%	
50.571	trans-Cadina-1(6),4-diene	1531	0.12%	
50.834	Selina-4(15),7(11)-diene	1535	0.02%	
51.084	Selina-3,7(11)-diene	1540	0.06%	
52.128	Germacrene B	1557	0.01%	
53.097	Caryophyllene alcohol	1574	0.03%	
56.355	gamma-Eudesmol	1630	0.01%	
59.366	Unidentified	1684	0.01%	
59.496	alpha-Bisabolol	1686	0.02%	IFRA

Total Identified Compounds **99.65 %**

