



Essential Oil University

GC/MS Report

Item	Lot
Lime EO Expressed <i>Citrus aurantifolia</i>	9E
Date	Analyst
11/10/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Lime EO Expressed, 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 Expressed**Botanical Name:** Citrus aurantifolia**Lot Number:** 9E**Production Method:** Expressed**Sample Type:** EO - Single**Country of Origin:** Mexico**Analysis Date:** 11/10/2025**Manufacture Date:** August 2025

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

+37.44

1.47853

0.86630



Ret. Time	Component	Ret. Idx.	Conc. %	
11.604	alpha-Thujene	923	0.25%	
12.005	alpha-Pinene	930	2.24%	ALLERGEN
12.885	Camphene	946	0.06%	
14.138	Sabinene	969	2.22%	
14.464	beta-Pinene	975	22.96%	ALLERGEN
14.804	Unidentified	982	0.01%	
14.919	para-Menth-3-ene	984	0.02%	
15.055	Myrcene	986	1.78%	PROP. 65
15.947	Pseudolimonene	1002	0.08%	
16.099	alpha-Phellandrene	1005	0.03%	
16.236	delta-3-Carene	1007	0.04%	
16.748	alpha-Terpinene	1015	0.24%	ALLERGEN
17.233	para-Cymene	1022	0.83%	
17.602	Limonene	1028	44.39%	ALLERGEN IFRA
17.668	beta-Phellandrene	1029	0.02%	
17.724	1,8-Cineole	1030	0.01%	
17.926	cis-beta-Ocimene	1033	0.03%	
18.597	trans-beta-Ocimene	1043	0.08%	
19.394	gamma-Terpinene	1055	11.56%	
20.147	trans-Sabinene hydrate	1067	0.05%	
20.267	Pinol	1069	0.02%	
21.147	Terpinolene	1082	0.62%	ALLERGEN
21.358	Fenchone	1086	0.01%	
22.096	Linalool	1097	0.28%	ALLERGEN IFRA
22.155	cis-Sabinene hydrate	1098	0.03%	
22.740	Thujol	1107	0.01%	
23.591	trans-para-Mentha-2,8-dienol	1119	0.01%	
24.336	cis-Limonene oxide	1130	0.03%	
24.626	trans-Limonene oxide	1134	0.03%	
24.873	trans-Pinocarveol	1138	0.03%	
25.017	Epoxyterpinolene	1140	0.04%	
25.674	Citronellal	1149	0.02%	IFRA
26.348	Pinocarvone	1159	0.02%	
26.405	Unidentified	1160	0.01%	
27.470	Unidentified	1176	0%	
27.613	Terpinen-4-ol	1178	0.25%	
28.621	alpha-Terpineol	1192	0.36%	ALLERGEN
28.939	Unidentified	1197	0.02%	
29.405	Decanal	1204	0.2%	
30.244	trans-Carveol	1216	0.01%	



Ret. Time	Component	Ret. Idx.	Conc. %	
30.357	Unidentified	1218	0.01%	
30.601	Nerol	1221	0.06%	
31.084	Unidentified	1228	0.02%	
31.125	Unidentified	1229	0.01%	
31.543	Neral	1235	1.56%	ALLERGEN IFRA
31.943	Carvone	1241	0.01%	ALLERGEN IFRA
32.369	Geraniol	1247	0.03%	ALLERGEN IFRA
33.564	Geranial	1265	2.5%	ALLERGEN IFRA
36.104	Unidentified	1302	0.01%	
38.032	delta-Elemene	1332	0.05%	
38.686	Unidentified	1342	0.01%	
39.571	Neryl acetate	1355	1.09%	
40.850	Geranyl acetate	1375	0.35%	ALLERGEN
41.569	beta-Elemene	1386	0.08%	
42.909	Dodecanal	1407	0.04%	
43.076	cis-alpha-Bergamotene	1409	0.04%	
43.461	beta-Caryophyllene	1415	0.93%	ALLERGEN
44.090	gamma-Elemene	1425	0.03%	
44.328	trans-alpha-Bergamotene	1429	1.43%	
44.527	Unidentified	1432	0.02%	
44.800	cis-beta-Farnesene	1437	0.03%	
45.584	trans-beta-Farnesene	1449	0.06%	
45.700	alpha-Humulene	1451	0.07%	
45.949	beta-Santalene	1455	0.02%	
47.095	gamma-Curcumene	1474	0.01%	
47.296	Germacrene D	1477	0.03%	
47.482	trans-beta-Bergamotene	1480	0.1%	
48.213	alpha-Selinene	1492	0.02%	
48.527	alpha-Bisabolene	1497	0.07%	
48.761	trans,trans-alpha-Farnesene	1500	0.13%	
48.965	beta-Bisabolene	1504	1.76%	
49.150	cis-gamma-Bisabolene	1507	0.01%	
49.910	beta-Sesquiphellandrene	1520	0.03%	
50.078	trans-gamma-Bisabolene	1523	0.02%	
50.911	trans-alpha-Bisabolene	1537	0.02%	
51.944	Germacrene B	1554	0.04%	
53.306	Caryophyllene oxide	1577	0.11%	
55.972	Unidentified	1623	0.02%	
56.181	Unidentified	1627	0.01%	
57.778	Unidentified	1656	0.01%	



Ret. Time	Component	Ret. Idx.	Conc. %	
58.499	Unidentified	1668	0.01%	
59.337	alpha-Bisabolol	1683	0.03%	IFRA
61.102	Hernianin	1715	0.06%	
66.303	Hexadecanal	1813	0.02%	
72.753	meta-Camphorene	1942	0.01%	
73.912	Citropten	1966	0.09%	
77.405	Bergaptene	2040	0.03%	PROP. 65 IFRA
85.017	Isopimpinellin	2208	0.03%	
95.024	Unidentified	2452	0.01%	

Total Identified Compounds **99.86 %**



TIC
23,706,542

