



Essential Oil University

GC/MS Report

Item	Lot
Basil (Sweet) EO ct. Linalool <i>Ocimum basilicum</i>	4J
Date	Analyst
3/14/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Basil (Sweet) EO ct. Linalool, meets the expected chemical profile for authentic essential oil of *Ocimum basilicum*. 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:** Basil (Sweet) EO ct. Linalool**Botanical Name:** Ocimum basilicum**Lot Number:** 4J**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** USA**Analysis Date:** 3/14/2025**Manufacture Date:** March 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

-13.40

1.47132

0.88882



Ret. Time	Component	Ret. Idx.	Conc. %	
4.028	3-Methylbutanal	646	0.01%	
4.562	2-Ethyl furan	699	0%	
5.151	3-Methyl 1-butanol	727	0%	
8.580	Hex-(3Z)-enol	848	0.01%	
11.521	Hashishene	918	0.01%	
11.792	alpha-Thujene	922	0.02%	
12.194	alpha-Pinene	930	0.28%	
13.083	Camphene	946	0.05%	
14.344	Sabinene	969	0.25%	
14.640	beta-Pinene	974	0.56%	
15.033	3-Octanone	981	0.01%	
15.275	Myrcene	986	0.57%	
16.201	(3E)-Hexenyl acetate	1002	0.03%	
16.328	alpha-Phellandrene	1004	0.02%	
16.985	alpha-Terpinene	1014	0.06%	
17.463	para-Cymene	1022	0.08%	
17.760	Limonene	1026	0.28%	IFRA
17.937	1,8-Cineole	1029	9.9%	
18.153	cis-beta-Ocimene	1032	0.23%	
18.834	trans-beta-Ocimene	1043	0.75%	
19.622	gamma-Terpinene	1055	0.07%	
20.407	trans-Sabinene hydrate	1067	0.16%	
21.445	Terpinolene	1083	0.09%	
21.479	trans-Linalool oxide (furanoid)	1083	0.17%	
21.784	6,7-Epoxymyrcene	1088	0.02%	
22.555	Linalool	1100	63.9%	IFRA
22.671	Hotrienol	1101	0.05%	
22.765	Unidentified	1103	0.02%	
22.921	1-Octen-3-yl acetate	1105	0.05%	IFRA
23.721	Unidentified	1116	0.01%	
24.070	cis-para-Menth-2-en-1-ol	1122	0.01%	
24.322	allo-Ocimene	1125	0.02%	
25.069	trans-Myroside	1136	0.06%	
25.590	Camphor	1144	0.76%	
26.830	Menthone	1162	0.01%	
27.193	delta-Terpineol	1167	0.08%	
27.296	Borneol	1168	0.07%	
27.723	Menthol	1175	0.01%	
27.909	Terpinen-4-ol	1177	0.29%	
28.401	(3Z)-3-Hexenyl butyrate	1184	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
28.911	alpha-Terpineol	1192	0.48%	
29.123	Estragole	1195	0.69%	IFRA
29.833	Unidentified	1205	0.01%	
29.982	Octyl acetate	1207	0.14%	
30.916	Nerol	1221	0.01%	
31.067	Citronellol	1223	0.01%	IFRA
32.249	Carvone	1241	0%	
32.665	Geraniol	1247	0.63%	IFRA
34.968	Bornyl acetate	1281	1.46%	
35.126	Isobornyl acetate	1283	0.03%	
35.723	trans-Pinocarvyl acetate	1292	0.01%	
38.154	delta-Elemene	1328	0.02%	
38.561	Unidentified	1335	0.05%	
39.142	alpha-Cubebene	1343	0.03%	
39.428	Eugenol	1348	3.73%	IFRA
39.585	Unidentified	1350	0.07%	
39.839	Unidentified	1354	0.02%	
41.014	alpha-Copaene	1372	0.09%	
41.175	Geranyl acetate	1374	0.02%	
41.434	Elemene isomer	1378	0.04%	
41.534	beta-Bourbonene	1380	0.12%	
41.805	beta-Cubebene	1384	0.04%	
41.914	beta-Elemene	1386	1.27%	
42.218	Unidentified	1390	0.04%	
42.569	Methyleugenol	1396	0.45%	IFRA
43.035	Unidentified	1403	0.01%	
43.419	cis-alpha-Bergamotene	1409	0.03%	
43.811	beta-Caryophyllene	1415	1.64%	
44.099	beta-Cedrene	1420	0.04%	IFRA
44.269	Unidentified	1423	0.01%	
44.483	beta-Gurjunene	1426	0.08%	
44.677	trans-alpha-Bergamotene	1429	2.63%	
44.811	alpha-Guaiene	1431	0.38%	
44.997	Aromadendrene	1434	0.01%	
45.141	cis-beta-Farnesene	1437	0.03%	
45.355	Unidentified	1440	0.01%	
45.453	trans-Murrola-3,5-diene	1442	0.06%	
45.919	trans-beta-Farnesene	1449	0.05%	
46.052	alpha-Humulene	1451	0.37%	
46.187	Unidentified	1453	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
46.321	Unidentified	1456	0.02%	
46.471	cis-Cadina-1(6),4-diene	1458	0.2%	
46.728	beta-Acoradiene	1462	0.02%	
46.870	Unidentified	1464	0.01%	
47.169	Unidentified	1469	0.01%	
47.279	alpha-Neocallitropsene	1471	0.03%	
47.650	Germacrene D	1477	1.34%	
47.828	trans-beta-Bergamotene	1480	0.16%	
47.976	gamma-Himachalene	1482	0.01%	
48.134	beta-Selinene	1485	0.06%	
48.288	Cadinene isomer	1487	0.01%	
48.539	Bicyclogermacrene	1491	0.53%	
48.745	Unidentified	1494	0.01%	
48.928	alpha-Bulnesene	1497	0.6%	
49.301	beta-Bisabolene	1504	0.06%	
49.611	gamma-Cadinene	1509	1.23%	
49.922	delta-Cadinene	1514	0.08%	
50.021	cis-Calamenene	1516	0.09%	
50.258	beta-Sesquiphellandrene	1520	0.07%	
50.611	Unidentified	1526	0.02%	
51.020	alpha-Cadinene	1533	0.03%	
51.410	Unidentified	1539	0.01%	
52.447	trans-Nerolidol	1557	0.04%	
52.921	Unidentified	1565	0.05%	
53.355	Spathulenol	1572	0.05%	
53.890	Unidentified	1581	0.01%	
54.394	Unidentified	1589	0.01%	
55.610	1,10-di-epi-Cubenol	1610	0.19%	
56.595	Unidentified	1628	0.01%	
57.127	tau-Cadinol	1637	1.13%	
57.865	alpha-Cadinol	1651	0.06%	
58.029	Unidentified	1654	0.02%	
58.689	Unidentified	1665	0.01%	
59.569	epi-alpha-Bisabolol	1681	0.01%	IFRA
59.686	alpha-Bisabolol	1683	0.01%	IFRA

Total Identified Compounds **99.56 %**

