



Essential Oil University

GC/MS Report

Item	Lot
Holy Basil Leaf (Tulsi) EO <i>Ocimum sanctum</i>	5F
Date	Analyst
1/10/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Holy Basil Leaf (Tulsi) EO, meets the expected chemical profile for authentic essential oil of *Ocimum sanctum*. 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:** Holy Basil Leaf (Tulsi) EO**Botanical Name:** Ocimum sanctum**Lot Number:** 5F**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** India**Analysis Date:** 1/10/2025**Manufacture Date:** October 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

-5.44

1.51792

0.98218



Ret. Time	Component	Ret. Idx.	Conc. %	
10.176	2,5-Diethyltetrahydrofuran	895	0.02%	
11.498	Tricyclene	921	0.01%	
12.045	alpha-Pinene	931	0.36%	
12.932	Camphene	947	0.21%	
14.180	Sabinene	970	0.03%	
14.476	beta-Pinene	976	0.78%	
15.110	Myrcene	987	0.02%	
17.574	Limonene	1027	0.33%	IFRA
17.752	1,8-Cineole	1030	0.17%	
17.976	cis-beta-Ocimene	1034	0.02%	
18.647	trans-beta-Ocimene	1044	0.46%	
21.215	Terpinolene	1084	0.01%	
22.166	Linalool	1098	0.09%	IFRA
25.015	Geijeren	1140	0.01%	
25.382	Camphor	1145	0.04%	
27.087	Borneol	1170	0.29%	
27.689	Terpinen-4-ol	1179	0.01%	
28.700	alpha-Terpineol	1193	0.02%	
38.893	alpha-Cubebene	1345	0.08%	
39.333	Eugenol	1352	44.77%	IFRA
40.770	alpha-Copaene	1374	0.71%	
41.182	Elemene isomer	1380	0.44%	
41.281	beta-Bourbonene	1381	0.11%	
41.580	beta-Cubebene	1386	0.13%	
41.688	beta-Elemene	1388	11.86%	
41.971	alpha-Cubebene	1392	0.04%	
42.351	Methyleugenol	1398	0.02%	IFRA
42.619	cis-beta-Caryophyllene	1402	0.06%	
43.275	alpha-Barbatene	1412	0.04%	
43.620	beta-Caryophyllene	1418	30.22%	
43.920	Unidentified	1423	0.02%	
44.083	Unidentified	1425	0.03%	
44.203	beta-Copaene	1427	0.06%	
44.417	trans-alpha-Bergamotene	1431	0.62%	
44.685	Isobazzanene	1435	0.02%	
45.196	Cadina-3,5-diene	1443	0.01%	
45.413	Unidentified	1447	0.12%	
45.670	trans-beta-Farnesene	1451	0.04%	
45.800	alpha-Humulene	1453	2.1%	
46.065	alpha-Gurjunene	1457	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %
46.209	cis-Muurolo-4(14),5-diene	1459	0.03%
46.701	Unidentified	1467	0.01%
46.906	Selina-4,11-diene	1471	0.23%
47.013	gamma-Muuroloene	1472	0.06%
47.385	Germacrene D	1478	1.41%
47.572	Unidentified	1481	0.05%
47.874	beta-Selinene	1486	0.75%
48.063	trans-Muurolo-4(14),5-diene	1489	0.05%
48.308	alpha-Selinene	1493	0.91%
48.475	alpha-Muuroloene	1496	0.03%
48.743	Unidentified	1500	0.02%
48.805	Unidentified	1501	0.02%
48.984	beta-Elemene	1504	0.15%
49.045	Unidentified	1505	0.06%
49.348	gamma-Cadinene	1510	0.03%
49.470	Cubebol	1512	0.02%
49.656	delta-Cadinene	1515	0.32%
49.998	beta-Sesquiphellandrene	1521	0.01%
50.170	trans-gamma-Bisabolene	1524	0.02%
50.290	Kessane	1526	0.05%
50.584	Unidentified	1531	0.03%
50.740	alpha-Cadinene	1534	0.01%
51.427	Elemol	1545	0.11%
52.034	Germacrene B	1556	0.01%
52.203	trans-Nerolidol	1559	0.04%
53.399	Caryophyllene oxide	1579	0.24%
54.125	Viridiflorol	1591	0.06%
55.010	Humulene epoxide II	1606	0.03%
55.342	Epicubenol	1612	0.01%
55.468	Maaliol	1614	0.05%
56.281	gamma-Eudesmol	1629	0.04%
56.853	Unidentified	1639	0.16%
57.602	Cubenol	1652	0.13%
57.758	Selin-11-en-4-alpha-ol	1655	0.3%
58.097	Intermedeol	1661	0.02%
58.395	Unidentified	1666	0.05%
60.520	Unidentified	1705	0.02%
61.410	Unidentified	1721	0.02%
100.927	Unidentified	2606	0.07%

Total Identified Compounds **99.35 %**

