



Essential Oil University

GC/MS Report

Item	Lot
Oregano EO <i>Origanum vulgare</i>	6AA
Date	Analyst
12/6/2024	Dr. Robert S. Pappas

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The analysis of this batch sample, Oregano EO, meets the expected chemical profile for authentic essential oil of *Origanum vulgare*. 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:** Oregano EO**Botanical Name:** Origanum vulgare**Lot Number:** 6AA**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Turkey**Analysis Date:** 12/6/2024**Manufacture Date:** July 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

-.76

1.51236

0.95248



Ret. Time	Component	Ret. Idx.	Conc. %	
4.039	3-Methylbutanal	647	0.01%	
4.149	2-Methylbutanal	658	0.02%	
6.082	Methyl 2-methylbutyrate	770	0.01%	
9.762	Unidentified	879	0.01%	
11.869	alpha-Thujene	924	0.47%	
12.275	alpha-Pinene	931	1.43%	
12.808	Unidentified	941	0.01%	
13.168	Camphene	947	0.05%	
14.782	1-Octen-3-ol	977	0.05%	
15.366	Myrcene	987	1.01%	
15.578	Unidentified	991	0.01%	
16.278	Pseudolimonene	1003	0.03%	
16.422	alpha-Phellandrene	1006	0.07%	
16.571	delta-3-Carene	1008	0.03%	
17.079	alpha-Terpinene	1016	1.62%	
17.239	ortho-Cymene	1018	0.03%	
17.572	para-Cymene	1023	7.3%	
17.854	Limonene	1028	0.12%	IFRA
17.954	beta-Phellandrene	1029	0.05%	
18.022	1,8-Cineole	1030	0.21%	
18.937	trans-beta-Ocimene	1044	0.04%	
19.735	gamma-Terpinene	1056	6.18%	
20.515	cis-Linalool oxide (furanoid)	1068	0.03%	
21.530	Terpinolene	1084	0.06%	
21.728	Fenchone	1087	0.02%	
21.846	para-Cymenene	1089	0.02%	
22.472	Linalool	1098	1.68%	IFRA
22.702	Unidentified	1102	0.02%	
22.959	alpha-Thujone	1105	0.01%	IFRA
25.704	Camphor	1145	0.01%	
27.416	Borneol	1170	0.32%	
27.880	Unidentified	1177	0.01%	
28.031	Terpinen-4-ol	1179	1.57%	
28.462	para-Cymen-8-ol	1185	0.02%	
29.057	alpha-Terpineol	1194	0.1%	
31.372	Thymol methyl ether	1228	0.05%	
32.003	Carvacryl methyl ether	1237	0.03%	
32.465	Carvone	1244	0.04%	IFRA
33.440	Carvenone	1258	0.01%	
34.898	Carvacrol analogue	1280	0.01%	



Ret. Time	Component	Ret. Idx.	Conc. %	
35.233	trans-Anethole	1284	0.02%	
35.495	Thymol	1288	3.11%	
36.246	Carvacrol	1299	69.48%	
37.057	Unidentified	1312	0.06%	
37.563	Unidentified	1319	0.01%	
39.529	Eugenol	1349	0.01%	IFRA
40.376	Carvacryl acetate	1362	0.06%	
41.137	alpha-Copaene	1374	0.01%	
41.287	Geranyl acetate	1376	0.01%	
42.688	Methyleugenol	1398	0.02%	IFRA
43.939	beta-Caryophyllene	1417	3.01%	
44.790	trans-alpha-Bergamotene	1431	0.04%	
44.985	Unidentified	1434	0.01%	
45.117	Aromadendrene	1436	0.06%	
46.174	alpha-Humulene	1453	0.17%	
47.406	Isogermacrene D	1473	0.01%	
47.585	Unidentified	1476	0.02%	
48.393	Viridiflorene	1489	0.04%	
49.423	beta-Bisabolene	1506	0.75%	
49.729	gamma-Cadinene	1511	0.04%	
50.038	delta-Cadinene	1516	0.03%	
51.380	Unidentified	1539	0.01%	
53.481	Spathulenol	1574	0.05%	
53.789	Caryophyllene oxide	1579	0.11%	
55.408	Humulene epoxide II	1607	0.02%	
57.239	tau-Cadinol	1639	0.05%	
57.999	Unidentified	1653	0.01%	
70.612	Unidentified	1890	0.01%	
71.833	Unidentified	1915	0.05%	

Total Identified Compounds **99.81 %**

