



Sample Information

Sample Name: Thyme Essential Oil
Botanical Name: Thymus vulgaris
Lot Number: 13107
Production Method: Steam distilled

Sample Type: EO - Single
Country of Origin: Greece
Analysis Date: 3/10/2025
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

-.44
1.49970
0.91692

Ret. Time	Component	Ret. Idx.	Conc. %	
3.986	3-Methylbutanal	648	0.01%	
4.091	2-Methylbutanal	659	0.02%	
4.507	Unidentified	700	0%	
5.035	Unidentified	725	0%	
5.885	Unidentified	766	0%	
5.967	Methyl alpha-methylbutyrate	769	0.06%	
11.370	Hashishene	919	0%	
11.501	Tricyclene	921	0.01%	
11.647	alpha-Thujene	924	0.66%	
12.047	alpha-Pinene	931	1.96%	
12.573	Thuja-2,4(10)diene	941	0.01%	
12.932	Camphene	947	0.14%	
14.181	Sabinene	970	0.03%	
14.355	4-Pentenyl propionate	973	0.01%	
14.478	beta-Pinene	976	1.13%	
14.866	3-Octanone	983	0.01%	
15.105	Myrcene	987	1.68%	
15.315	1-Isopropyl-3-methylcyclohexane	991	0.02%	
15.545	3-Octanol	995	0.02%	
16.005	Pseudolimonene	1003	0.05%	
16.152	alpha-Phellandrene	1005	0.09%	
16.293	delta-3-Carene	1008	0.08%	
16.804	alpha-Terpinene	1016	1.38%	
16.967	ortho-Cymene	1018	0.05%	
17.115	Unidentified	1020	0.01%	
17.327	para-Cymene	1024	23.15%	
17.579	Limonene	1027	0.27%	IFRA
17.684	beta-Phellandrene	1029	0.12%	
17.756	1,8-Cineole	1030	0.53%	
17.915	meta-Cymene	1033	0.01%	
17.982	cis-beta-Ocimene	1034	0.02%	
18.655	trans-beta-Ocimene	1044	0.03%	
19.455	gamma-Terpinene	1056	11.48%	
19.838	Unidentified	1062	0.01%	
20.203	trans-Sabinene hydrate	1068	0.08%	
21.216	Terpinolene	1084	0.1%	
21.428	Fenchone	1087	0.01%	
21.542	para-Cymenene	1089	0.05%	
22.180	Linalool	1098	4.29%	IFRA
23.845	cis-para-Menth-2-en-1-ol	1123	0.01%	

Ret. Time	Component	Ret. Idx.	Conc. %	
24.941	Unidentified	1139	0.01%	
25.063	Unidentified	1140	0.02%	
25.390	Camphor	1145	0.05%	
26.513	Isoneral	1162	0.03%	IFRA
26.762	cis-Limonene oxide	1165	0.09%	
26.979	Umbellulone	1168	0.04%	
27.092	Borneol	1170	0.22%	
27.560	Unidentified	1177	0.01%	
27.697	Terpinen-4-ol	1179	1.34%	
28.015	Unidentified	1183	0.01%	
28.135	para-Cymen-8-ol	1185	0.04%	
28.427	Unidentified	1189	0.02%	
28.710	alpha-Terpineol	1194	0.13%	
28.923	cis-Dihydrocarvone	1197	0.01%	
31.036	Thymol methyl ether	1228	0.31%	
31.657	Carvacryl methyl ether	1237	0.14%	
32.087	Carvone	1243	0.01%	IFRA
32.529	Geraniol	1250	0%	
32.825	Unidentified	1254	0.01%	
33.013	Unidentified	1257	0.01%	
34.558	Isothymol	1279	0.13%	
34.854	Bornyl acetate	1284	0.04%	
35.283	Thymol	1290	42.59%	
35.470	Unidentified	1293	0.06%	
35.715	Carvacrol	1297	2.85%	
35.880	Unidentified	1299	0.01%	
36.047	Unidentified	1301	0.01%	
36.695	Unidentified	1311	0.02%	
38.772	Thymol acetate	1343	0.04%	
39.178	Eugenol	1349	0.01%	IFRA
40.757	alpha-Copaene	1373	0.03%	
41.278	beta-Bourbonene	1381	0.01%	
43.555	beta-Caryophyllene	1417	2.89%	
44.422	trans-alpha-Bergamotene	1431	0.02%	
44.685	Unidentified	1435	0.02%	
44.729	Aromadendrene	1436	0.08%	
45.793	alpha-Humulene	1453	0.38%	
46.060	Unidentified	1457	0.01%	
46.675	Geranyl propanoate	1467	0.02%	
46.831	trans-Cadina-1(6),4-diene	1469	0.01%	

Ret. Time	Component	Ret. Idx.	Conc. %	
47.007	gamma-Murolene	1472	0.04%	
47.233	Unidentified	1476	0.06%	
47.849	Unidentified	1486	0.01%	
47.998	Viridiflorene	1488	0.07%	
48.070	Unidentified	1489	0.01%	
48.327	Unidentified	1493	0.01%	
48.473	alpha-Murolene	1496	0.02%	
49.048	beta-Bisabolene	1505	0.01%	
49.343	gamma-Cadinene	1510	0.06%	
49.654	delta-Cadinene	1515	0.09%	
53.087	Spathulenol	1573	0.01%	
53.401	Caryophyllene oxide	1579	0.14%	
53.638	Unidentified	1583	0.01%	
55.017	Humulene epoxide II	1606	0.04%	
55.731	Unidentified	1619	0.01%	
56.853	tau-Cadinol	1639	0.01%	
57.605	Unidentified	1652	0.01%	
58.429	Unidentified	1667	0.01%	
69.957	Unidentified	1885	0.04%	
70.800	Unidentified	1902	0.01%	
79.358	Unidentified	2082	0.04%	

Total Identified Compounds **99.57 %**

