

Sample & Analysis Information

Sample Information

Sample Name: Bergamot Essential Oil**Botanical Name:** Citrus aurantium bergamia**Lot Number:** 13044**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Italy**Analysis Date:** 11/14/2024**Manufacture Date:** November 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

+32.80

1.46460

0.86860

Ret. Time	Component	Ret. Idx.	Conc. %	
12.428	alpha-Thujene	921	0.06%	
12.851	alpha-Pinene	928	1.16%	
13.779	Camphene	945	0.02%	
15.069	Sabinene	967	0.86%	
15.394	beta-Pinene	973	6.17%	
16.009	Myrcene	984	1.27%	
16.868	Octanal	999	0.03%	
16.941	Pseudolimonene	1000	0.02%	
17.098	alpha-Phellandrene	1003	0.02%	
17.241	delta-3-Carene	1005	0.05%	
17.764	alpha-Terpinene	1013	0.14%	
18.253	para-Cymene	1020	0.76%	IFRA
18.647	Limonene	1026	38.08%	
18.719	beta-Phellandrene	1027	0.02%	
18.791	1,8-Cineole	1028	0%	
18.952	cis-beta-Ocimene	1030	0.19%	
19.646	trans-beta-Ocimene	1041	0.35%	
20.470	gamma-Terpinene	1053	6.82%	
21.257	trans-Sabinene hydrate	1065	0.02%	
21.265	cis-Linalool oxide (furanoid)	1065	0.02%	
22.276	Terpinolene	1080	0.3%	
22.340	trans-Linalool oxide (furanoid)	1081	0.03%	
22.587	para-Cymenene	1085	0%	
23.283	Linalool	1096	12.05%	IFRA
23.591	Nonanal	1100	0%	
25.180	allo-Ocimene	1123	0.01%	
25.528	cis-Limonene oxide	1128	0.02%	
25.823	trans-Limonene oxide	1132	0%	
28.860	Terpinen-4-ol	1176	0%	
29.853	alpha-Terpineol	1190	0.13%	
30.183	Unidentified	1195	0.01%	
30.637	Decanal	1201	0.01%	
30.912	Octyl acetate	1205	0.09%	
31.848	Nerol	1219	0.01%	
32.228	Unidentified	1224	0.01%	
32.783	Neral	1232	0.16%	IFRA
33.213	Unidentified	1238	0.02%	
33.330	Unidentified	1240	0.05%	
33.690	Linalyl acetate	1245	28.88%	
34.404	Unidentified	1256	0.07%	

Ret. Time	Component	Ret. Idx.	Conc. %	
34.810	Geranial	1262	0.32%	IFRA
35.306	Unidentified	1269	0.01%	
35.862	Unidentified	1277	0.01%	
37.393	Unidentified	1299	0.01%	
38.279	Unidentified	1313	0.01%	
39.149	Unidentified	1326	0%	IFRA
39.934	Unidentified	1338	0.01%	
40.118	alpha-Terpinyl acetate	1340	0.1%	
40.381	Eugenol	1344	0.05%	
40.886	Neryl acetate	1352	0.4%	
41.955	Unidentified	1368	0%	
42.172	Geranyl acetate	1371	0.46%	
44.898	beta-Caryophyllene	1413	0.19%	
45.737	trans-alpha-Bergamotene	1427	0.15%	
46.965	Sesquisabinene	1446	0.01%	
48.920	trans-beta-Bergamotene	1477	0.01%	
49.115	Unidentified	1481	0.01%	
50.384	beta-Bisabolene	1501	0.33%	
51.344	beta-Sesquiphellandrene	1517	0.01%	
51.516	trans-gamma-Bisabolene	1520	0%	
54.783	Caryophyllene oxide	1575	0%	
79.547	Unidentified	2047	0%	

Total Identified Compounds **99.78 %**

TIC
32,067,118

