



Sample Information

Sample Name: Juniper EO**Botanical Name:** Juniperus communis**Lot Number:** 13107**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Serbia**Analysis Date:** 10/8/2024**Date of Distillation:** 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

-4.40

1.47355

0.86733



Ret. Time	Component	Ret. Idx.	Conc. %	
11.047	2,6-Dimethyl-4-octene	909	0.02%	
11.697	Tricyclene	921	0.13%	
11.853	alpha-Thujene	924	0.21%	
12.316	alpha-Pinene	932	39.13%	
13.050	alpha-Fenchene	945	0.04%	
13.146	Camphene	947	0.41%	
13.348	Thuja-2,4(10)diene	951	0.02%	
14.435	Sabinene	971	14.5%	
14.726	beta-Pinene	976	7.97%	
15.029	Camphene isomer	981	0.01%	
15.345	Myrcene	987	4.14%	
16.248	Pseudolimonene	1003	0.19%	
16.398	alpha-Phellandrene	1005	0.01%	
16.541	delta-3-Carene	1007	0.13%	
17.055	alpha-Terpinene	1015	0.03%	
17.531	para-Cymene	1023	0.1%	
17.845	Limonene	1027	8.93%	IFRA
17.920	beta-Phellandrene	1029	0.05%	
19.692	gamma-Terpinene	1056	1.35%	
21.496	Terpinolene	1083	0.85%	
21.693	Unidentified	1086	0.01%	
21.817	para-Cymenene	1088	0.01%	
22.400	alpha-Pinene oxide	1097	0.02%	
23.082	Unidentified	1107	0.03%	
24.285	alpha-Campholenal	1125	0.01%	
24.691	Unidentified	1131	0.01%	
24.915	Unidentified	1134	0.01%	
24.999	Unidentified	1135	0.01%	
25.234	trans-Pinocarveol	1138	0.03%	
25.382	Epoxyterpinolene	1141	0.02%	
25.564	trans-Verbenol	1143	0.04%	
25.651	Unidentified	1145	0.01%	
27.372	Borneol	1169	0.02%	
28.007	Terpinen-4-ol	1179	5.33%	
28.423	para-Cymen-8-ol	1185	0.02%	
28.987	alpha-Terpineol	1193	1.1%	
29.777	Verbenone	1204	0.01%	
30.510	Unidentified	1215	0.01%	
30.614	trans-Carveol	1217	0.01%	
35.043	Bornyl acetate	1282	0.16%	

Ret. Time	Component	Ret. Idx.	Conc. %	
39.178	alpha-Terpinyl acetate	1344	0.58%	
41.088	alpha-Copaene	1373	0.02%	
41.879	Unidentified	1385	0.01%	
41.988	beta-Elemene	1387	0.02%	
43.620	alpha-Cedrene	1412	0.26%	IFRA
43.900	beta-Caryophyllene	1417	4.29%	
44.171	beta-Cedrene	1421	0.04%	IFRA
44.524	gamma-Elemene	1427	0.05%	
44.846	cis-Thujopsene	1432	0.05%	
45.763	Humulen-(v1)	1447	0.14%	
46.045	trans-beta-Farnesene	1451	0.05%	
46.141	alpha-Humulene	1453	3.35%	
46.410	Alloaromadendrene	1457	0.03%	
46.550	Unidentified	1459	0.01%	
46.651	Unidentified	1461	0.02%	
46.819	Unidentified	1464	0.02%	
47.171	cis-Murrola-4(14),5-diene	1469	0.03%	
47.351	trans-Muurolo-4(14),5-diene	1472	0.04%	
47.728	Germacrene D	1478	2.05%	
48.423	Unidentified	1489	0.01%	
48.588	beta-Alaskene	1492	0.04%	
48.819	alpha-Muuroloene	1496	0.05%	
49.387	Unidentified	1505	0.02%	
49.567	alpha-Alaskene	1508	0.08%	
49.687	gamma-Cadinene	1510	0.1%	
50.004	delta-Cadinene	1515	1.82%	
50.186	cis-Calamenene	1518	0.01%	
50.511	Unidentified	1524	0.01%	
51.098	Unidentified	1534	0.01%	
51.755	Unidentified	1545	0.01%	
52.382	Germacrene B	1555	0.05%	
53.437	Unidentified	1573	0.01%	
54.564	allo-Cedrol	1592	0.07%	
55.297	epi-Cedrol	1605	1.39%	
57.941	Unidentified	1652	0.01%	
63.825	Unidentified	1759	0.01%	
63.995	Benzyl benzoate	1763	0.03%	IFRA
67.849	Unidentified	1836	0.02%	
73.210	meta-Camphorene	1943	0.03%	
79.706	Abietadiene	2080	0.04%	



Ret. Time	Component	Ret. Idx.	Conc. %	
88.775	Unidentified	2287	0.02%	
92.705	Unidentified	2383	0.01%	

Total Identified Compounds **99.71 %**

