



Essential Oil University

GC/MS Report

Item	Lot
Juniper Berry EO <i>Juniperus communis</i>	7D
Date	Analyst
1/17/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Juniper Berry EO, meets the expected chemical profile for authentic essential oil of *Juniperus communis*. 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:** Juniper Berry EO**Botanical Name:** Juniperus communis**Lot Number:** 7D**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Serbia**Analysis Date:** 1/17/2025**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

-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-Muuroala-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-Muurolene	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 %**

