



Essential Oil University

GC/MS Report

Item	Lot
Giant Arborvitae EO Light Rectified <i>Thuja plicata</i>	0M
Date	Analyst
1/8/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Giant Arborvitae EO Light Rectified, meets the expected chemical profile for authentic essential oil of *Thuja plicata*. 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 Type:** EO - Single**Sample Name:** Giant Arborvitae EO Light Rectified**Country of Origin:** Canada**Botanical Name:** Thuja plicata**Analysis Date:** 1/8/2025**Lot Number:** 0M**Manufacture Date:** August 2023**Production Method:** Steam distilled

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra**Column Type:** ZB-5**Injection Type:** Split**Injection Volume:** 0.1 µL**Split Ratio:** 24.4**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

-2.36

1.51775

1.02391



Ret. Time	Component	Ret. Idx.	Conc. %	
11.950	Cumene	917	0.02%	
12.511	alpha-Pinene	927	0.09%	
13.321	alpha-Fenchene	941	0.1%	
17.219	1,4-Cineole	1009	0.36%	
17.843	para-Cymene	1018	0.25%	
18.141	Limonene	1023	0.06%	IFRA
18.322	1,8-Cineole	1025	0.04%	
18.399	Unidentified	1027	0.04%	
21.543	para-Cymenene isomer	1074	0.05%	
22.155	para-Cymenene	1083	0.15%	
23.330	Unidentified	1101	0.04%	
24.180	Unidentified	1113	0.06%	
24.451	endo-Fenchol	1117	0.12%	
25.261	Terpin-3-en-1-ol	1129	0.18%	
25.427	Unidentified	1131	0.04%	
25.606	Unidentified	1134	0.02%	
26.038	Camphor	1140	0.04%	
26.194	Unidentified	1142	0.04%	
26.968	Unidentified	1153	0.02%	
27.743	Unidentified	1164	0.03%	
28.363	Terpinen-4-ol	1173	0.82%	
28.631	Unidentified	1177	0.04%	
28.781	para-Cymen-8-ol	1179	0.06%	
28.903	Terpineol isomer	1181	0.11%	
29.168	Unidentified	1185	0.04%	
29.371	alpha-Terpineol	1188	1.04%	
29.697	Unidentified	1192	0.02%	
30.171	Unidentified	1199	0.07%	
31.298	Unidentified	1216	0.07%	
31.595	Unidentified	1220	0.12%	
32.344	Thymol methyl ether	1231	0.11%	
32.595	Unidentified	1234	0.02%	
32.878	Unidentified	1239	0.06%	
33.215	Unidentified	1244	0.02%	
33.363	cis-Myrtanol	1246	0.06%	
33.526	Unidentified	1248	0.01%	
34.005	trans-Myrtanol	1255	0.21%	
34.181	Methyl myrtenate	1258	0.05%	
34.870	Unidentified	1268	0.23%	
35.000	Unidentified	1270	0.06%	



Ret. Time	Component	Ret. Idx.	Conc. %	
35.166	Unidentified	1272	0.06%	
35.624	Unidentified	1279	0.11%	
35.749	cis-Methyl thujanate	1280	0.06%	
35.858	Unidentified	1282	0.1%	
36.184	Methyl myrtenate	1287	1.63%	
36.472	Carvacrol	1291	0.28%	
36.727	Unidentified	1295	0.03%	
36.945	Unidentified	1298	0.03%	
37.066	Unidentified	1300	0.16%	
37.761	Unidentified	1310	0.05%	
38.163	Methyl thujate	1316	83.12%	
39.190	Unidentified	1332	1.98%	
39.867	Methyl cuminate	1342	0.07%	
40.291	Unidentified	1349	1.87%	
41.153	Unidentified	1362	0.91%	
41.367	Unidentified isomer I	1365	1.56%	
41.553	Unidentified isomer I	1368	1.46%	
41.736	Thujic acid	1370	0.31%	
42.235	Unidentified	1378	0.02%	
42.465	Unidentified isomer II	1382	0.05%	
42.788	Unidentified isomer II	1386	0.02%	
42.916	Unidentified	1388	0.04%	
43.137	Methyl trans-4-methylcinnamate	1392	0.06%	
43.657	alpha-Thujaplicin	1400	0.1%	
45.303	Unidentified	1426	0.03%	
47.667	Unidentified	1464	0.04%	
47.942	Unidentified	1468	0.04%	
48.292	gamma-Thujaplicin	1474	0.02%	
48.684	Unidentified	1480	0.06%	
50.149	Nootkatene	1503	0.09%	
57.060	gamma-Eudesmol	1621	0.26%	
58.381	alpha-Eudesmol	1644	0.08%	
78.662	Abietatriene	2038	0.04%	
80.163	Abietadiene	2070	0.05%	
81.140	Unidentified	2091	0.02%	
82.646	Unidentified	2124	0.03%	
83.182	Unidentified	2136	0.03%	
85.192	Unidentified	2181	0.02%	
85.657	Unidentified isomer III	2192	0.03%	
86.430	Unidentified isomer III	2209	0.11%	



Ret. Time	Component	Ret. Idx.	Conc. %	
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Total Identified Compounds **90.09 %**

