



Essential Oil University

GC/MS Report

Item	Lot
Angelica Root EO <i>Angelica archangelica</i>	4C
Date	Analyst
12/2/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Angelica Root EO, meets the expected chemical profile for authentic essential oil of *Angelica archangelica*. 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: Angelica Root EO
Botanical Name: Angelica archangelica
Lot Number: 4C
Production Method: Steam distilled

Sample Type: EO - Single
Country of Origin: France
Analysis Date: 12/2/2025
Manufacture Date: October 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

+46.64
1.47412
0.85495



Ret. Time	Component	Ret. Idx.	Conc. %	
3.760	2-Methylfuran	584	0%	
4.207	3-Methylbutanal	635	0.01%	
4.759	Heptane	698	0.01%	
6.208	Toluene	762	0.05%	PROP. 65 IFRA
7.030	Octane	798	0.01%	
7.077	Hexanal	800	0.04%	
9.411	Unidentified	858	0.01%	
11.126	Heptanal	901	0.01%	
12.131	Hashishene	918	0.01%	
12.249	Tricyclene	920	0.03%	
12.394	alpha-Thujene	923	0.33%	
12.838	alpha-Pinene	931	23.73%	ALLERGEN
13.649	alpha-Fenchene	945	0.02%	
13.748	Camphene	947	0.56%	
13.947	Thuja-2,4(10)diene	950	0.28%	
14.653	Unidentified	963	0.01%	
14.965	Cymene isomer	968	0.02%	
15.034	Sabinene	970	1.56%	
15.351	beta-Pinene	975	1.02%	ALLERGEN
15.969	Myrcene	986	2.43%	PROP. 65
16.616	delta-2-Carene	998	0.08%	
16.660	para-Menth-3-ene	998	0.03%	
16.857	Octanal	1002	0.08%	
17.090	alpha-Phellandrene	1005	22.36%	
17.229	delta-3-Carene	1007	10.66%	
17.597	1,4-Cineole	1013	0.16%	
17.724	alpha-Terpinene	1015	0.31%	ALLERGEN
17.878	ortho-Cymene	1017	0.05%	
18.212	para-Cymene	1022	2.79%	
18.533	Limonene	1027	14.97%	ALLERGEN IFRA
18.638	beta-Phellandrene	1028	6.23%	
18.720	1,8-Cineole	1030	0.4%	
18.901	cis-beta-Ocimene	1032	1.79%	
19.601	trans-beta-Ocimene	1043	3.47%	
20.065	Unidentified	1050	0.01%	
20.414	gamma-Terpinene	1055	1.16%	
21.974	Isoterpinolene	1079	0.22%	
22.244	Terpinolene	1083	0.32%	ALLERGEN
22.571	para-Cymenene	1088	0.06%	
22.665	Rosefuran	1089	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
22.982	6-Camphenone	1094	0.01%	
24.932	cis-para-Menth-2-en-1-ol	1122	0.04%	
25.153	allo-Ocimene	1125	0.1%	
25.990	Unidentified	1137	0.02%	
26.161	trans-para-Menth-2-en-1-ol	1140	0.04%	
26.385	trans-Verbenol	1143	0.06%	
27.231	(3Z,5Z)-Undeca-1,3,5-triene	1155	0.01%	
28.203	alpha-Phellandrene-8-ol	1169	0.03%	
28.453	(3E,5E)-Undeca-1,3,5-triene	1173	0.02%	
28.817	Unidentified	1178	0.04%	
29.258	Cryptone	1184	0.04%	
29.861	Myrtenal	1193	0.08%	
30.384	alpha-Phellandrene epoxide	1200	0.04%	
32.174	Thymol methyl ether	1226	0.01%	
33.527	Carvotanacetone	1246	0.03%	
35.500	Phellandral	1275	0.06%	
35.672	cis-Verbenyl acetate	1277	0.02%	
35.942	Bornyl acetate	1281	0.62%	
36.255	trans-Verbenyl acetate	1286	0.05%	
36.590	Unidentified	1291	0.05%	
36.816	Carvacrol	1294	0.04%	
37.272	Unidentified	1301	0.01%	
38.293	Unidentified	1316	0.03%	
38.963	trans-Sabinyol acetate	1327	0.02%	
39.132	trans-Carveyl acetate	1329	0.02%	IFRA
39.313	cis-Piperitol acetate	1332	0.02%	
40.355	Eugenol	1348	0.06%	ALLERGEN IFRA
41.591	Isolatedene	1366	0.12%	
42.002	alpha-Copaene	1373	0.48%	
42.356	Unidentified	1378	0.02%	
42.886	beta-Elemene	1386	0.05%	
43.180	Unidentified	1391	0.04%	
44.675	beta-Cedrene	1414	0.03%	IFRA
44.819	beta-Caryophyllene	1416	0.06%	ALLERGEN
45.467	beta-Copaene	1427	0.09%	
45.821	cis-Thujopsene	1432	0.02%	
46.689	beta-Barbatene	1446	0.07%	
46.885	trans-beta-Farnesene	1449	0.03%	
47.081	alpha-Humulene	1452	0.46%	
48.277	trans-Cadina-1(6),4-diene	1471	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
48.666	Germacrene D	1478	0.13%	
49.538	Unidentified	1492	0.07%	
49.740	alpha-Muurolene	1495	0.14%	
50.021	delta-Amorphene	1499	0.02%	
50.301	beta-Bisabolene	1504	0.46%	
50.918	delta-Cadinene	1514	0.11%	
52.297	Unidentified	1537	0.1%	
52.701	Elemol	1544	0.03%	
53.359	Germacrene B	1555	0.04%	
53.596	Unidentified	1559	0.04%	
54.401	Spathulenol	1573	0.01%	
54.762	Unidentified	1579	0.02%	
56.340	Humulene epoxide II	1606	0.03%	
57.382	Pentadecanolide isomer	1624	0.08%	
58.894	beta-Eudesmol	1651	0.02%	
68.187	Pentadecanolide	1823	0.25%	IFRA
82.334	Osthole	2115	0.04%	

Total Identified Compounds **99.49 %**



TIC
11,430,938

