



# Essential Oil University

## GC/MS Report

Item	Lot
Rhododendron (Anthopogon) EO <i>Rhododendron anthopogon</i>	4B
Date	Analyst
4/29/2025	Dr. Robert S. Pappas

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**The analysis of this batch sample, Rhododendron (Anthopogon) EO, meets the expected chemical profile for authentic essential oil of *Rhododendron anthopogon*. 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:** Rhododendron (Anthopogon) EO  
**Botanical Name:** Rhododendron anthopogon  
**Lot Number:** 4B  
**Production Method:** Steam distilled

**Sample Type:** EO - Single  
**Country of Origin:** Nepal  
**Analysis Date:** 4/29/2025  
**Manufacture Date:** April 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	METHOD	RESULTS
Optical Rotation @20°C	USP[781]	+0.60
Refractive Index @20°C	USP[831]	1.47750
Specific Gravity @20°C	USP[841]	0.86835



Ret. Time	Component	Ret. Idx.	Conc. %	
6.182	Toluene	757	0.01%	IFRA
7.015	Octane	792	0.01%	
8.179	3-Heptanone	824	0.02%	
8.369	4-Methyl-3-hexanone	829	0.01%	
11.535	Unidentified	905	0.01%	
12.217	Tricyclene	917	0.06%	
12.368	alpha-Thujene	920	0.31%	
12.838	alpha-Pinene	928	31.59%	
13.064	5-Methyl-3-heptanone	932	0.02%	
13.612	alpha-Fenchene	942	0.07%	
13.712	Camphene	944	0.33%	
14.999	Sabinene	966	0.09%	
15.341	beta-Pinene	972	16.2%	
15.814	para-Menth-3-ene	981	0.02%	
15.934	Myrcene	983	1.19%	
17.017	alpha-Phellandrene	1001	0.03%	
17.165	delta-3-Carene	1004	0.02%	
17.681	alpha-Terpinene	1011	0.16%	
18.166	para-Cymene	1019	0.54%	
18.506	Limonene	1024	14.05%	IFRA
18.598	beta-Phellandrene	1025	0.15%	
18.680	1,8-Cineole	1026	0.02%	
18.872	cis-beta-Ocimene	1029	4.16%	
19.025	2-Heptyl acetate	1032	0.03%	
19.558	trans-beta-Ocimene	1040	0.61%	
20.373	gamma-Terpinene	1052	4.26%	
21.178	trans-Sabinene hydrate	1064	0.01%	
22.071	Unidentified	1077	0.01%	
22.186	Terpinolene	1079	0.34%	
22.498	para-Cymenene	1084	0.01%	
22.665	Ethyl sorbate	1086	0.01%	
22.960	Unidentified	1091	0.04%	
23.129	Linalool	1093	0.2%	IFRA
23.817	Unidentified	1103	0.01%	
24.492	endo-Fenchol	1113	0.04%	
25.089	allo-Ocimene	1122	0.3%	
25.649	Unidentified	1130	0.02%	
25.984	trans-Pinocarveol	1134	0.01%	
26.993	trans-beta-Terpineol	1149	0.01%	
28.149	Borneol	1165	0.04%	



Ret. Time	Component	Ret. Idx.	Conc. %	
28.750	Terpinen-4-ol	1174	0.19%	
29.752	alpha-Terpineol	1188	0.41%	
30.099	Unidentified	1193	0.02%	
31.892	Citronellol	1219	0.03%	IFRA
33.099	Unidentified	1237	0.05%	
35.595	Unidentified	1273	0.02%	
35.874	Bornyl acetate	1277	0.15%	
36.759	Unidentified	1290	0.02%	
40.078	alpha-Cubebene	1340	0.2%	
40.201	Citronellyl acetate	1342	0.21%	IFRA
41.547	alpha-Ylangene	1362	0.06%	
41.650	Isodene	1364	0.02%	
41.966	alpha-Copaene	1368	0.5%	
42.488	beta-Bourbonene	1376	0.11%	
42.738	Unidentified	1380	0.03%	
42.857	beta-Elemene	1382	0.14%	
43.164	Unidentified	1386	0.01%	
43.684	7-epi-Sesquithujene	1394	0.04%	
43.998	alpha-Gurjunene	1399	0.13%	
44.786	beta-Caryophyllene	1412	1.77%	
45.256	gamma-Maaliene	1419	0.01%	
45.432	beta-Copaene	1422	0.16%	
45.665	Unidentified	1426	0.01%	
45.701	Unidentified	1426	0.02%	
45.965	Aromadendrene	1430	0.25%	
46.085	Unidentified	1432	0.01%	
46.420	cis-Murrola-3,5-diene	1438	0.08%	
46.631	trans-Murrola-3,5-diene	1441	0.23%	
46.855	trans-beta-Farnesene	1445	0.33%	
47.038	alpha-Humulene	1447	0.32%	
47.308	Alloaromodendrene	1452	0.4%	
47.439	cis-Muurolo-4(14),5-diene	1454	0.13%	
48.065	cis-Cadina-1(6),4-diene	1464	0.58%	
48.243	gamma-Muurolo-4(14),5-diene	1467	1.25%	
48.413	gamma-Curcumene	1469	0.07%	
48.505	alpha-Muurolo-4(14),5-diene	1471	0.06%	
48.622	Germacrene D	1473	0.2%	
48.884	trans-Muurolo-4(14),5-diene	1477	0.08%	
49.010	delta-Selinene	1479	0.05%	
49.122	beta-Selinene	1481	0.51%	



Ret. Time	Component	Ret. Idx.	Conc. %	
49.270	Viridiflorene	1483	0.21%	
49.287	gamma-Amorphene	1483	0.29%	
49.562	alpha-Selinene	1488	0.85%	
49.708	alpha-Muurolene	1490	2.05%	
50.000	delta-Amorphene	1495	0.07%	
50.050	trans,trans-alpha-Farnesene	1495	0.16%	
50.270	beta-Bisabolene	1499	0.02%	
50.378	beta-Curcumene	1501	0.28%	
50.590	gamma-Cadinene	1504	2.05%	
50.908	delta-Cadinene	1510	5.84%	
51.088	cis-Calamenene	1513	0.14%	
51.178	Zonarene	1514	0.44%	
51.745	trans-Cadine-1,4-diene	1524	0.24%	
51.994	alpha-Cadinene	1528	0.42%	
52.248	alpha-Calacorene	1532	0.09%	
52.632	Elemol	1538	0.03%	
53.417	cis-Nerolidol	1552	0.03%	
53.587	Valerianol	1554	0.03%	
54.000	Unidentified	1561	0.05%	
54.346	Spathulenol	1567	0.06%	
54.674	Caryophyllene oxide	1573	0.04%	
54.901	Intermedeol	1577	0.05%	
55.399	Viridiflorol	1585	0.02%	
55.520	Guaiol	1587	0.04%	
55.996	Ledol	1595	0.05%	
56.610	1,10-di-epi-Cubenol	1605	0.05%	
56.785	Unidentified	1609	0.02%	
57.215	Unidentified	1616	0.01%	
57.321	Epicubenol	1618	0.1%	
57.470	Unidentified	1621	0.01%	
57.549	gamma-Eudesmol	1622	0.04%	
57.886	Unidentified	1628	0.02%	
58.120	tau-Cadinol	1632	0.44%	
58.227	epi-alpha-Muurolol	1634	0.64%	
58.367	delta-Cadinol	1636	0.29%	
58.867	alpha-Cadinol	1645	0.81%	
59.409	Bulnesol	1655	0.06%	
60.679	alpha-Bisabolol	1677	0.04%	IFRA
61.034	Shyobunol	1684	0.02%	
63.404	Unidentified	1727	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %
64.201	Unidentified	1742	0.01%

Total Identified Compounds **99.59 %**

