



Essential Oil University

GC/MS Report

Item	Lot
Magnolia Flower EO <i>Magnolia x alba</i>	2A
Date	Analyst
7/25/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Magnolia Flower EO, meets the expected chemical profile for authentic essential oil of *Magnolia x alba*. 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: Magnolia Flower EO
Botanical Name: Magnolia x alba
Lot Number: 2A
Production Method: Steam distilled

Sample Type: EO - Single
Country of Origin: China
Analysis Date: 7/25/2025
Manufacture Date: May 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

-9.68
1.46646
0.88584



Ret. Time	Component	Ret. Idx.	Conc. %	
3.027	Unidentified	551	0.02%	
3.715	Methyl propionate	621	0.03%	
4.082	2-Methylbutanal	658	0.05%	
4.844	Methyl butyrate	716	0.05%	
4.870	Unidentified	717	0.02%	
4.915	Unidentified	720	0%	
5.083	3-Methyl-1-butanol	728	0.01%	
5.152	2-Methylbutanol	731	0.03%	
5.957	Methyl 2-methylbutyrate	769	5.7%	
7.931	2-Methylbutyric acid	835	0.08%	
8.193	Ethyl 2-methylbutyrate	842	0.01%	
8.841	Methyl tiglate	859	0.01%	
11.473	Methyl hexanoate	920	0.02%	
11.632	alpha-Thujene	923	0.01%	
12.033	alpha-Pinene	931	0.15%	
12.918	Camphene	947	0.06%	
14.158	Unidentified	970	0.01%	
14.461	beta-Pinene	975	0.38%	
15.090	Myrcene	987	0.06%	
16.787	alpha-Terpinene	1015	0.03%	
17.267	para-Cymene	1023	0.02%	
17.554	Limonene	1027	0.11%	IFRA
17.730	1,8-Cineole	1030	0.46%	
17.953	cis-beta-Ocimene	1033	1.34%	
18.629	trans-beta-Ocimene	1044	1.87%	
19.410	gamma-Terpinene	1056	0.04%	
20.202	cis-Linalool oxide (furanoid)	1068	0.1%	
21.215	Terpinolene	1084	0.02%	
21.266	trans-Linalool oxide (furanoid)	1084	0.12%	
21.615	Unidentified	1090	0.02%	
21.812	Methyl benzoate	1093	0.02%	
22.296	Linalool	1100	64.28%	IFRA
22.430	Hotrienol	1102	0.17%	
22.684	beta-Thujone	1106	0.03%	IFRA
22.961	Phenethyl alcohol	1110	0.21%	
23.784	Methyl octanoate	1122	0.02%	
24.080	allo-Ocimene	1126	0.14%	
24.508	Unidentified	1132	0.02%	
25.366	Camphor	1145	0.01%	
25.917	trans-beta-Terpineol	1153	0.01%	



Ret. Time	Component	Ret. Idx.	Conc. %	
26.901	cis-Linalool oxide (pyranoid)	1167	0.02%	
27.066	Borneol	1170	0.07%	
27.236	trans-Linalool oxide (pyranoid)	1172	0.03%	
27.671	Terpinen-4-ol	1178	0.06%	
28.672	alpha-Terpineol	1193	0.29%	
28.890	Estragole	1196	0.08%	IFRA
30.656	Nerol	1222	0.03%	
32.418	Geraniol	1248	0.09%	IFRA
32.665	2-Phenethyl acetate	1252	0.04%	
34.156	Unidentified	1274	0.03%	
34.453	trans-Linalool oxide acetate (pyranoid)	1278	0.18%	
35.076	Safrole	1287	0.06%	
35.664	Unidentified	1296	0.01%	
38.086	delta-Elemene	1333	0.01%	
38.395	Methyl anthranilate	1337	0.01%	
38.863	alpha-Cubebene	1344	0.07%	
39.040	Phenethyl propionate	1347	0.02%	
40.200	Unidentified	1365	0.01%	
40.300	Unidentified	1366	0.01%	
40.728	alpha-Copaene	1373	0.37%	
41.143	Elemene isomer	1379	0.08%	
41.629	beta-Elemene	1387	3.13%	
41.814	Unidentified	1389	0.01%	
42.315	Methyleugenol	1397	2.44%	IFRA
42.576	cis-beta-Caryophyllene	1401	0.01%	
43.131	cis-alpha-Bergamotene	1410	0.03%	
43.523	beta-Caryophyllene	1416	3.79%	
43.675	Unidentified	1419	0.01%	
44.159	beta-Copaene	1427	0.03%	
44.383	trans-alpha-Bergamotene	1430	0.14%	
44.510	alpha-Guaiene	1432	0.03%	
44.795	Pheylethyl butyrate	1437	0.03%	
45.376	Isogermacrene D	1446	0.04%	
45.670	trans-beta-Farnesene	1451	0.03%	
45.760	alpha-Humulene	1452	1.38%	
46.020	Unidentified	1456	0.03%	
46.668	Unidentified	1467	0.01%	
46.805	trans-Cadina-1(6),4-diene	1469	0.06%	
46.871	Selina-4,11-diene	1470	0.34%	
46.979	gamma-Murolene	1472	0.13%	



Ret. Time	Component	Ret. Idx.	Conc. %	
47.270	Unidentified	1476	0.02%	
47.349	Germacrene D	1478	0.55%	
47.541	trans-beta-Bergamotene	1481	0.1%	
47.620	Phenethyl 2-methylbutyrate	1482	0.2%	
47.760	Unidentified	1484	0.04%	
47.841	beta-Selinene	1486	1.43%	
47.990	Unidentified	1488	0.12%	
48.263	trans-Methyl isoeugenol	1492	1.48%	
48.295	alpha-Selinene	1493	0.38%	
48.443	alpha-Muurolene	1495	0.09%	
48.625	alpha-Bulnesene	1498	0.07%	
48.681	Unidentified	1499	0.03%	
48.817	trans,trans-alpha-Farnesene	1501	0.09%	
49.016	beta-Bisabolene	1505	0.27%	
49.312	gamma-Cadinene	1510	0.1%	
49.438	Cadinene analogue	1512	0.02%	
49.626	delta-Cadinene	1515	0.99%	
49.787	Unidentified	1518	0.07%	
49.890	Unidentified	1519	0.03%	
49.964	beta-Sesquiphellandrene	1521	0.03%	
50.137	Unidentified	1524	0.01%	
50.332	Unidentified	1527	0.01%	
50.472	trans-Cadina-1,4-diene	1529	0.19%	
50.722	alpha-Cadinene	1533	0.03%	
50.982	alpha-Calacorene	1538	0.06%	
51.240	Unidentified	1542	0.17%	
51.337	Unidentified	1544	0.04%	
51.553	Unidentified	1548	0.03%	
52.008	Unidentified	1555	0.01%	
52.170	trans-Nerolidol	1558	0.34%	
53.085	Unidentified	1573	0.01%	
53.369	Caryophyllene oxide	1578	0.46%	
53.679	Unidentified	1583	0.04%	
54.240	Unidentified	1593	0.01%	
54.985	Humulene epoxide II	1606	0.13%	
55.442	Unidentified	1614	0.11%	
55.707	Junenol	1619	0.03%	
55.915	Unidentified	1622	0.04%	
56.022	1-Epicubenol	1624	0.1%	
56.243	Unidentified	1628	0.03%	



Ret. Time	Component	Ret. Idx.	Conc. %	
56.543	Unidentified	1634	0.01%	
56.764	Phenethyl hexanoate	1637	0.47%	
56.932	epi-alpha-Murolol	1640	0.4%	
57.074	Unidentified	1643	0.06%	
57.269	Unidentified	1646	0.02%	
57.577	alpha-Cadinol	1652	0.12%	
57.730	Intermedeol	1655	0.53%	
57.924	Unidentified	1658	0.03%	
58.105	Unidentified	1661	0.06%	
58.370	Unidentified	1666	0.18%	
58.665	Unidentified	1671	0.02%	
59.730	Unidentified	1690	0.01%	
60.491	Unidentified	1704	0.05%	
60.973	Unidentified	1713	0.02%	
61.273	Unidentified	1719	0.04%	
61.383	Unidentified	1721	0.05%	
61.637	Unidentified	1725	0.02%	
62.452	Unidentified	1741	0.06%	
62.663	Unidentified	1745	0.02%	
63.706	Unidentified	1764	0.02%	
67.731	Phenethyl octanoate	1841	0.02%	
68.335	Unidentified	1853	0.01%	
68.803	Unidentified	1863	0.11%	
69.038	Unidentified	1867	0.14%	
70.605	Nonadecane	1898	0.02%	
71.802	Methyl hexadecanoate	1923	0.03%	
79.642	Methyl linoleate	2088	0.29%	
79.893	Methyl linolenate	2093	0.17%	
80.089	Heneicosane	2097	0.04%	
88.804	Tricosane	2298	0.02%	

Total Identified Compounds **98.02 %**

