Essential Oil University

GC/MS Report

Item	Lot
Magnolia Flower EO *Magnolia x alba*	**6G**
Date	**Analyst**
12/11/2025	**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: 6G
Production Method: Steam distilled
Sample Type: EO - Single
Country of Origin: China
Analysis Date: 12/11/2025
Manufacture Date: November 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

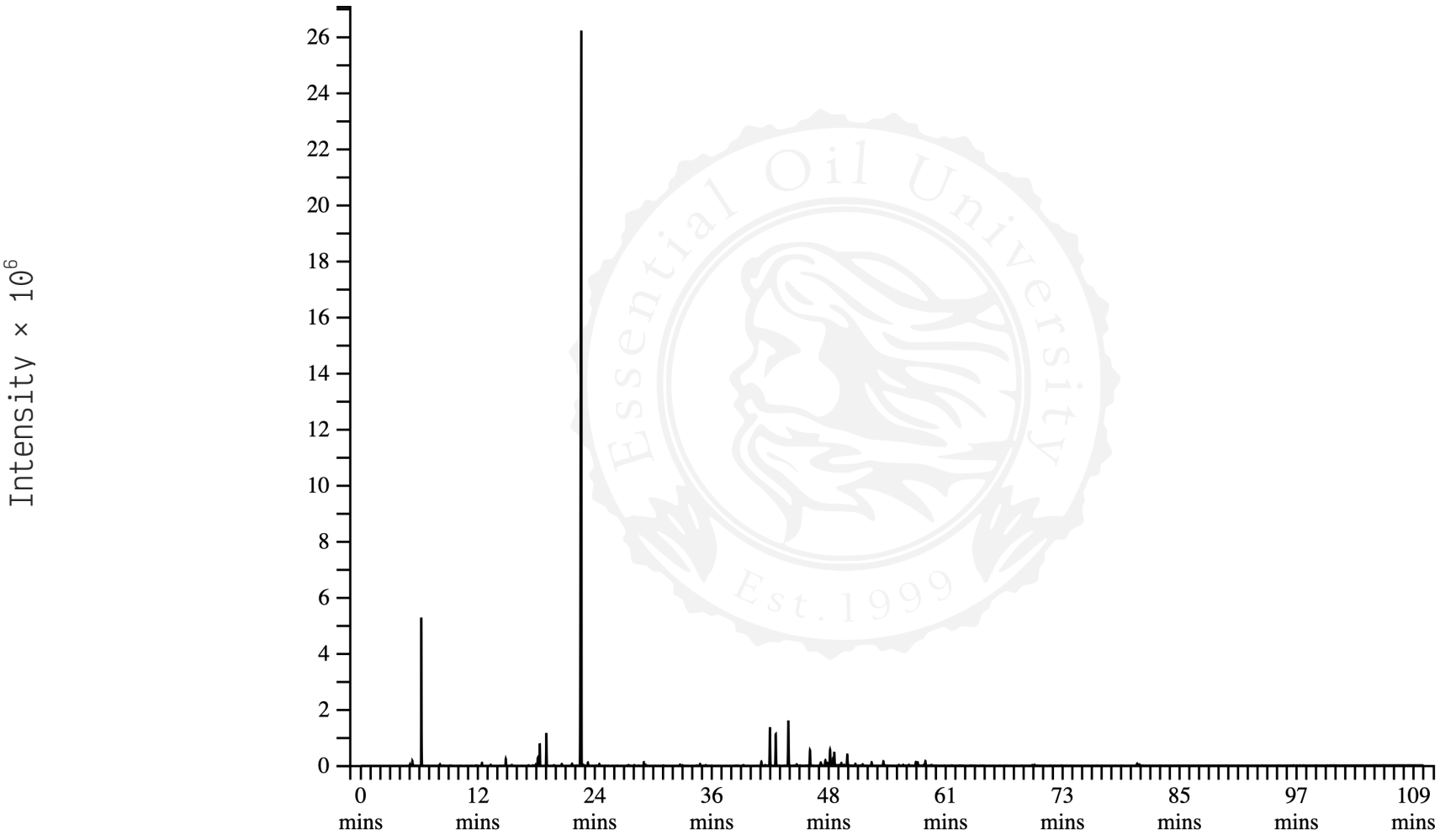
Physical Data

ANALYSIS	METHOD	RESULTS
Optical Rotation @20°C	USP[781]	-9.68
Refractive Index @20°C	USP[831]	1.46652
Specific Gravity @20°C	USP[841]	0.88595

Ret. Time	Component	Ret. Idx.	Conc. %	
3.771	Unidentified	653	0.01%	
3.905	Methyl propionate	659	0.05%	
4.304	2-Methylbutanal	676	0.06%	
4.513	Methyl isobutyrate	685	0.02%	
5.090	Methyl butyrate	710	0.07%	
5.145	Unidentified	712	0.01%	
5.406	2-Methylbutanol	723	0.04%	
6.262	Methyl 2-methylbutyrate	760	6.58%	
8.189	2-Methylbutyric acid	825	0.12%	
8.579	Ethyl 2-methylbutyrate	834	0.01%	
9.218	Methyl tiglate	850	0.02%	
9.348	Hexanol	853	0.01%	
11.923	Methyl hexanoate	912	0.02%	
12.538	alpha-Pinene	923	0.17%	ALLERGEN
13.440	Camphene	939	0.06%	
15.006	beta-Pinene	966	0.4%	ALLERGEN
15.630	Myrcene	977	0.06%	PROP. 65
17.352	alpha-Terpinene	1006	0.03%	ALLERGEN
17.832	para-Cymene	1014	0.03%	
18.125	Limonene	1018	0.1%	ALLERGEN IFRA
18.314	1,8-Cineole	1021	0.49%	
18.522	cis-beta-Ocimene	1024	1.37%	
19.206	trans-beta-Ocimene	1034	1.95%	
19.995	gamma-Terpinene	1046	0.05%	
20.799	cis-Linalool oxide (furanoid)	1058	0.13%	
21.825	Terpinolene	1074	0.03%	ALLERGEN
21.865	trans-Linalool oxide (furanoid)	1074	0.15%	
22.212	Rosefuran	1079	0.01%	
22.357	Methyl benzoate	1082	0.02%	
22.816	Linalool	1088	66.79%	ALLERGEN IFRA
22.982	Hotrienol	1091	0.1%	
23.100	Unidentified	1093	0.01%	
23.503	Phenethyl alcohol	1099	0.2%	
24.365	Methyl octanoate	1111	0.01%	
24.690	allo-Ocimene	1116	0.13%	
27.525	cis-Linalool oxide (pyranoid)	1156	0.01%	
27.698	Borneol	1159	0.06%	
27.856	transLinalool oxide (pyranoid)	1161	0.03%	
28.307	Terpinen-4-ol	1168	0.06%	
28.787	Hex-(3Z)-enyl butyrate	1175	0.02%	

Ret. Time	Component	Ret. Idx.	Conc. %	
29.298	alpha-Terpineol	1182	0.26%	ALLERGEN
29.503	Estragole	1185	0.07%	PROP. 65 IFRA
31.289	Nerol	1210	0.03%	
33.051	Geraniol	1236	0.09%	ALLERGEN IFRA
33.290	2-Phenethyl acetate	1240	0.04%	
34.813	Unidentified	1262	0.02%	
35.121	trans-Linalool oxide acetate (pyranoid)	1266	0.15%	
35.713	Safrole	1275	0.06%	PROP. 65
36.271	Unidentified	1283	0.01%	
39.006	Methyl anthranilate	1324	0.01%	
39.597	alpha-Cubebene	1332	0.06%	
39.689	Phenethyl propionate	1334	0.02%	
41.464	alpha-Copaene	1361	0.33%	
41.867	Elemene isomer	1367	0.06%	
42.354	beta-Elemene	1374	2.87%	
42.958	Methyleugenol	1383	2.25%	PROP. 65 IFRA
43.334	Unidentified	1389	0.02%	
43.874	cis-alpha-Bergamotene	1397	0.03%	
44.264	beta-Caryophyllene	1403	3.54%	ALLERGEN
44.902	beta-Copaene	1413	0.02%	
45.121	trans-alpha-Bergamotene	1417	0.12%	
45.256	alpha-Guaiene	1419	0.03%	
45.460	Phenylethyl butyrate	1422	0.04%	
46.114	Isogermacrene D	1433	0.04%	
46.355	trans-beta-Farnesene	1437	0.02%	
46.501	alpha-Humulene	1439	1.21%	
46.761	epi-beta-Santalene	1443	0.02%	
47.555	cis-Murrola-4(14),5-diene	1456	0.05%	
47.614	Selina-4,11-diene	1457	0.27%	
47.717	trans-Muurola-4(14),5-diene	1458	0.1%	
48.089	Germacrene D	1464	0.46%	
48.305	Phenethyl 2-methylbutyrate	1468	0.27%	
48.580	beta-Selinene	1472	1.35%	
48.711	Unidentified	1474	0.08%	
48.887	cis-Methyl isoeugenol	1477	0.59%	
49.014	alpha-Selinene	1479	1.12%	
49.174	alpha-Muurolene	1481	0.08%	
49.366	alpha-Bulnesene	1485	0.06%	
49.539	trans,trans-alpha-Farnesene	1487	0.1%	
49.749	beta-Bisabolene	1491	0.22%	

Ret. Time	Component	Ret. Idx.	Conc. %	
50.044	gamma-Cadinene	1495	0.08%	
50.168	Cubebol	1497	0.01%	
50.362	delta-Cadinene	1500	0.89%	
50.497	Unidentified	1503	0.07%	
50.685	beta-Sesquiphellandrene	1506	0.05%	
51.200	trans-Cadine-1,4-diene	1514	0.15%	
51.448	alpha-Cadinene	1519	0.02%	
51.702	alpha-Calacorene	1523	0.04%	
51.952	beta-Selinene	1527	0.12%	
52.886	trans-Nerolidol	1543	0.27%	
54.102	Caryophyllene oxide	1563	0.36%	
54.404	Unidentified	1568	0.02%	
55.709	Humulene epoxide II	1590	0.09%	
56.157	Intermedeol	1598	0.07%	
56.422	Unidentified	1602	0.02%	
56.640	Unidentified	1606	0.02%	
56.748	Epicubenol	1608	0.07%	
57.460	Phenethyl hexanoate	1620	0.36%	
57.649	Cadinol analogue	1624	0.33%	
57.789	Cadinol analogue	1626	0.04%	
58.290	Cadin-4-en-10-ol	1635	0.07%	
58.446	Pogostol	1638	0.39%	
58.821	Unidentified	1644	0.02%	
59.079	Unidentified	1649	0.07%	
61.198	Unidentified	1686	0.03%	
61.984	Unidentified	1700	0.02%	
62.090	Unidentified	1702	0.03%	
62.341	Unidentified	1707	0.01%	
63.158	Unidentified	1722	0.02%	
63.374	Unidentified	1726	0.01%	
64.299	Benzyl benzoate	1743	0.01%	ALLERGEN IFRA
68.433	Phenylethyl octanoate	1821	0.02%	
69.520	Unidentified	1842	0.07%	
69.755	Unidentified	1847	0.08%	
71.371	Pentacosane	1878	0.02%	
72.530	Methyl hexadecanoate	1901	0.03%	
80.378	Methyl linoleate	2064	0.19%	
80.617	Methy linolenate	2070	0.11%	
80.878	Heneicosane	2075	0.02%	
89.585	Tricosane	2272	0.02%	

Ret. Time	Component	Ret. Idx.	Conc. %
		Total Identified Compounds	**99.33 %**

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