

Sample & Analysis Information

Sample Information

Sample Name: Magnolia Flower Essential Oil**Botanical Name:** Magnolia x alba**Lot Number:** 13259**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** China**Analysis Date:** 5/2/2025**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 %**

