

## Sample Information

**Sample Name:** Magnolia Flower EO

**Botanical Name:** Magnolia x alba

**Lot Number:** CHP6-PK

**Production Method:** Steam distilled

**Sample Type:** EO - Single

**Country of Origin:** China

**Analysis Date:** 8/28/2024

**Manufacture Date:** August 2024

## 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

1.46641

0.88520

Ret. Time	Component	Ret. Idx.	Conc. %	
3.619	Unidentified	606	0.01%	
3.764	Methyl propionate	620	0.03%	
4.138	2-Methylbutanal	657	0.06%	
4.353	Methyl isobutyrate	678	0.02%	
4.921	Methyl butyrate	716	0.07%	
5.165	Unidentified	727	0.01%	
5.236	2-Methylbutanol	731	0.03%	
6.061	Methyl 2-methylbutyrate	769	5.65%	
8.090	2-Methylbutyric acid	835	0.2%	
8.345	Unidentified	842	0.01%	
9.010	Methyl tiglate	859	0.01%	
9.155	Unidentified	863	0.01%	
11.684	Methyl hexanoate	920	0.02%	
11.853	Unidentified	924	0.01%	
12.256	alpha-Pinene	931	0.16%	
13.149	Camphene	947	0.05%	
14.712	beta-Pinene	976	0.39%	
15.354	Myrcene	987	0.09%	
17.063	alpha-Terpinene	1015	0.03%	
17.544	Unidentified	1023	0.02%	
17.833	Limonene	1027	0.11%	IFRA
17.999	1,8-Cineole	1030	0.48%	
18.230	cis-beta-Ocimene	1033	1.45%	
18.916	trans-beta-Ocimene	1044	2.03%	
19.703	gamma-Terpinene	1056	0.04%	
20.495	cis-Linalool oxide (furanoid)	1068	0.12%	
21.564	trans-Linalool oxide (furanoid)	1084	0.16%	
21.934	Unidentified	1090	0.01%	
22.098	Clorius	1093	0.01%	
22.611	Linalool	1100	64.64%	IFRA
22.738	Hotrienol	1102	0.14%	
23.257	Phenethyl alcohol	1110	0.2%	
24.092	Unidentified	1122	0.01%	
24.406	allo-Ocimene	1126	0.13%	
26.313	Unidentified	1154	0.01%	
27.229	Unidentified	1167	0.01%	
27.385	Borneol	1170	0.06%	
27.553	Unidentified	1172	0.02%	
27.808	Menthol	1176	0.04%	
28.000	Terpinen-4-ol	1179	0.06%	

Ret. Time	Component	Ret. Idx.	Conc. %	
28.495	Hex-(3Z)-enyl butyrate	1186	0.01%	
28.997	alpha-Terpineol	1193	0.26%	
29.213	Estragole	1196	0.07%	IFRA
30.990	Nerol	1222	0.03%	
32.751	Geraniol	1248	0.1%	IFRA
32.995	2-Phenethyl acetate	1252	0.04%	
34.496	Unidentified	1274	0.02%	
34.798	trans-Linalool oxide acetate (pyranoid)	1278	0.15%	
35.413	Safrole	1287	0.05%	
38.742	Unidentified	1337	0.01%	
39.239	alpha-Cubebene	1345	0.05%	
39.370	Unidentified	1347	0.02%	
41.108	alpha-Copaene	1373	0.32%	
41.522	Elemene isomer	1380	0.07%	
42.011	beta-Elemene	1387	3.01%	
42.659	Methyleugenol	1397	2.29%	IFRA
43.518	cis-alpha-Bergamotene	1411	0.02%	
43.909	beta-Caryophyllene	1417	3.73%	
44.549	Unidentified	1427	0.02%	
44.764	trans-alpha-Bergamotene	1431	0.13%	
44.898	alpha-Guaiene	1433	0.03%	
45.143	Phenylethyl butyrate	1437	0.04%	
45.748	Unidentified	1446	0.03%	
46.010	Unidentified	1451	0.02%	
46.149	alpha-Humulene	1453	1.37%	
46.398	Unidentified	1457	0.02%	
47.263	Selina-4,11-diene	1471	0.36%	
47.371	trans-Cadina-1(6),4-diene	1472	0.12%	
47.739	Germacrene D	1478	0.54%	
47.978	Phenethyl 2-methylbutyrate	1482	0.3%	
48.110	Unidentified	1484	0.03%	
48.233	beta-Selinene	1486	1.48%	
48.364	Unidentified	1488	0.11%	
48.620	trans-Methyl isoeugenol	1492	0.6%	
48.665	alpha-Selinene	1493	1.26%	
48.830	alpha-Muurolene	1496	0.09%	
49.023	Unidentified	1499	0.07%	
49.192	trans,trans-alpha-Farnesene	1502	0.13%	
49.396	beta-Bisabolene	1505	0.28%	
49.702	gamma-Cadinene	1510	0.1%	

Ret. Time	Component	Ret. Idx.	Conc. %
49.815	Unidentified	1512	0.02%
50.014	delta-Cadinene	1516	1%
50.162	Unidentified	1518	0.09%
50.285	Unidentified	1520	0.02%
50.345	Unidentified	1521	0.04%
50.860	trans-Cadina-1,4-diene	1530	0.18%
51.105	Unidentified	1534	0.02%
51.374	alpha-Calacorene	1538	0.03%
51.628	Unidentified	1543	0.17%
51.795	Unidentified	1546	0.02%
52.540	trans-Nerolidol	1558	0.38%
53.763	Caryophyllene oxide	1579	0.44%
54.064	Unidentified	1584	0.02%
55.380	Humulene epoxide II	1606	0.11%
55.827	Unidentified	1614	0.1%
56.091	Unidentified	1619	0.03%
56.300	Unidentified	1623	0.01%
56.418	1-Epicubenol	1625	0.1%
56.644	Unidentified	1629	0.01%
56.928	Unidentified	1634	0.01%
57.139	Phenethyl hexanoate	1638	0.43%
57.328	epi-alpha-Muurolol	1641	0.39%
57.468	Unidentified	1644	0.04%
57.661	Unidentified	1647	0.01%
57.973	Cadin-4-en-10-ol	1653	0.12%
58.122	Intermedeol	1655	0.55%
58.330	Unidentified	1659	0.03%
58.505	Unidentified	1662	0.02%
58.650	Unidentified	1665	0.01%
58.761	Unidentified	1667	0.1%
59.067	Unidentified	1672	0.02%
60.884	Unidentified	1705	0.05%
61.360	Unidentified	1713	0.01%
61.672	Unidentified	1719	0.03%
61.780	Unidentified	1721	0.04%
62.036	Unidentified	1726	0.02%
62.849	Unidentified	1741	0.04%
63.069	Unidentified	1745	0.02%
64.105	Unidentified	1765	0.03%
65.881	Unidentified	1798	0.01%

Ret. Time	Component	Ret. Idx.	Conc. %
68.124	Phenylethyl octanoate	1842	0.03%
69.195	Unidentified	1863	0.14%
69.428	Unidentified	1867	0.18%
69.771	Unidentified	1874	0.01%
71.017	Nonadecane	1898	0.02%
72.204	Methyl hexadecanoate	1923	0.05%
80.052	Methyl linoleate	2088	0.44%
80.300	Methyl linolenate	2093	0.26%
80.520	Heneicosane	2098	0.04%
89.241	Tricosane	2298	0.03%
97.257	Pentacosane	2497	0.02%

Total Identified Compounds **98.13 %**

