

Sample & Analysis Information

Sample Information

Sample Name: Helichrysum Essential Oil**Botanical Name:** Helichrysum italicum**Lot Number:** 12944**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** France**Analysis Date:** 12/4/2024**Manufacture Date:** December 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

-4.80

1.47663

0.90549

Ret. Time	Component	Ret. Idx.	Conc. %	
12.058	alpha-Pinene	931	4.16%	
12.691	Unidentified	943	0.02%	
12.845	alpha-Fenchene	946	0.07%	
12.940	Camphene	947	0.03%	
14.486	beta-Pinene	976	0.14%	
15.114	Myrcene	987	0.03%	
15.875	Isobutyl 2-methylbutyrate	1001	0.01%	
16.810	alpha-Terpinene	1016	0.08%	
17.291	para-Cymene	1023	0.15%	
17.585	Limonene	1028	1.95%	IFRA
17.705	beta-Phellandrene	1029	0.01%	
17.762	1,8-Cineole	1030	0.39%	
18.659	trans-beta-Ocimene	1044	0.01%	
18.858	Isobutyl angelate	1047	0.62%	
19.436	gamma-Terpinene	1056	0.38%	
21.225	Terpinolene	1084	0.08%	
21.590	Isobutyl tiglate	1089	0.2%	
21.645	Unidentified	1090	0.02%	
22.172	Linalool	1098	0.72%	IFRA
22.400	2-Methylbutyl-2-methylbutyrate	1102	0.07%	
22.535	Nonanal	1104	0.04%	
23.487	endo-Fenchol	1118	0.03%	
24.961	trans-Pinocarveol	1139	0.03%	
25.302	Unidentified	1144	0.02%	
25.405	Isoamyl angelate	1145	0.03%	
25.671	Isoamyl tiglate	1149	0.51%	
27.099	Borneol	1170	0.05%	
27.700	Terpinen-4-ol	1179	0.64%	
28.704	alpha-Terpineol	1193	0.33%	
29.503	Decanal	1205	0.03%	
30.683	Nerol	1223	0.28%	
32.488	Unidentified	1249	0.05%	
32.813	Unidentified	1254	0.01%	
34.255	Hex-(3Z)-enyl angelate	1275	0.03%	
34.721	Hexyl angelate	1282	0.25%	
35.355	2-Undecanone	1291	0.03%	
35.900	Tridecane	1299	0.03%	
37.901	Unidentified	1330	0.03%	
38.879	alpha-Terpinyl acetate	1345	0.1%	
38.970	Unidentified	1346	0.01%	

Ret. Time	Component	Ret. Idx.	Conc. %	
39.090	Citronellyl acetate	1348	0.02%	IFRA
39.760	Neryl acetate	1358	37.5%	
40.317	Cyclosativene	1367	0.28%	
40.365	Isodene	1367	0.08%	
40.794	alpha-Copaene	1374	1.8%	
40.959	Geranyl acetate	1376	0.05%	
41.334	Unidentified	1382	0.02%	
41.823	Sativene	1390	0.01%	
42.451	Tetradecane	1399	0.02%	
42.688	Isoitalicene	1403	2.52%	
42.907	Italicene	1406	0.07%	
43.188	cis-alpha-Bergamotene	1411	0.84%	
43.350	Unidentified	1414	0.02%	
43.593	beta-Caryophyllene	1417	8.88%	
44.084	Unidentified	1425	0.02%	
44.416	4,6,9-Trimethyldec-8-en-3,5-dione	1431	2.37%	
44.941	6,9-Guaiadiene	1439	0.09%	
45.381	Neryl propionate	1446	0.77%	
45.687	trans-beta-Farnesene	1451	0.1%	
45.814	alpha-Humulene	1453	0.79%	
45.949	Unidentified	1455	0.03%	
46.099	Unidentified	1458	0.24%	
46.337	alpha-Acoradiene	1461	0.22%	
46.569	beta-Acoradiene	1465	0.25%	
46.720	Unidentified	1468	0.08%	
46.935	Selina-4,11-diene	1471	1.12%	
47.001	2,5,7-Trimethyldec-2-en-6,8-dione	1472	1.24%	
47.248	gamma-Curcumene	1476	12.26%	
47.434	Ar-Curcumene	1479	2.41%	
47.611	trans-beta-Bergamotene	1482	0.44%	
47.912	beta-Selinene	1487	4.99%	
48.119	trans-Murrola-4(14),5-diene	1490	0.17%	
48.346	alpha-Selinene	1494	3.01%	
48.491	alpha-Murolene	1496	0.24%	
48.761	delta-Amorphene	1500	0.29%	
49.068	beta-Bisabolene	1506	0.12%	
49.172	beta-Curcumene	1507	0.4%	
49.371	gamma-Cadinene	1511	0.3%	
49.678	delta-Cadinene	1516	0.58%	
49.860	Unidentified	1519	0.03%	

Ret. Time	Component	Ret. Idx.	Conc. %	
49.944	Zonarene	1520	0.09%	
50.187	trans-gamma-Bisabolene	1524	0.07%	
50.535	trans-Cadine-1,4-diene	1530	0.06%	
50.603	Unidentified	1531	0.14%	
50.770	Unidentified	1534	0.05%	
51.019	trans-alpha-Bisabolene	1539	0.14%	
52.217	trans-Nerolidol	1559	0.1%	
52.490	Unidentified	1563	0.21%	
52.600	Unidentified	1565	0.03%	
52.755	Unidentified	1568	0.21%	
52.810	Unidentified	1569	0.16%	
53.315	Neryl isovalerate	1577	0.08%	
53.415	Caryophyllene oxide	1579	0.34%	
54.286	Guaiol	1594	0.08%	
54.812	Unidentified	1603	0.1%	
54.984	Copaborneol	1606	0.24%	
55.218	Rosifoliol	1610	0.28%	
55.350	Unidentified	1612	0.03%	
55.486	Unidentified	1615	0.1%	
55.579	Unidentified	1616	0.07%	
56.067	1,10-di-epi-Cubenol	1625	0.02%	
56.310	Unidentified	1629	0.03%	
56.422	Epicubenol	1631	0.04%	
56.523	beta-Eudesmol	1633	0.06%	
56.880	tau-Cadinol	1640	0.02%	
57.628	alpha-Eudesmol	1653	0.15%	
57.776	Pogostol	1655	0.19%	
58.451	beta-Bisabolol	1667	0.08%	
58.541	epi-beta-Bisabolol	1669	0.04%	
59.093	Unidentified	1679	0.04%	
59.318	alpha-Bisabolol	1683	0.05%	IFRA
59.450	Unidentified	1685	0.02%	
59.555	Unidentified	1687	0.04%	
61.463	Geranyl hexanoate	1722	0.07%	
63.037	Unidentified	1752	0.02%	
64.138	Unidentified	1772	0.02%	
64.461	Unidentified	1778	0.11%	
65.165	Unidentified	1791	0.02%	
67.617	Phytone	1839	0.01%	
95.040	Unidentified	2452	0.02%	

Ret. Time	Component	Ret. Idx.	Conc. %	
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Total Identified Compounds **97.95 %**



GC/MS Report: Chromatogram

