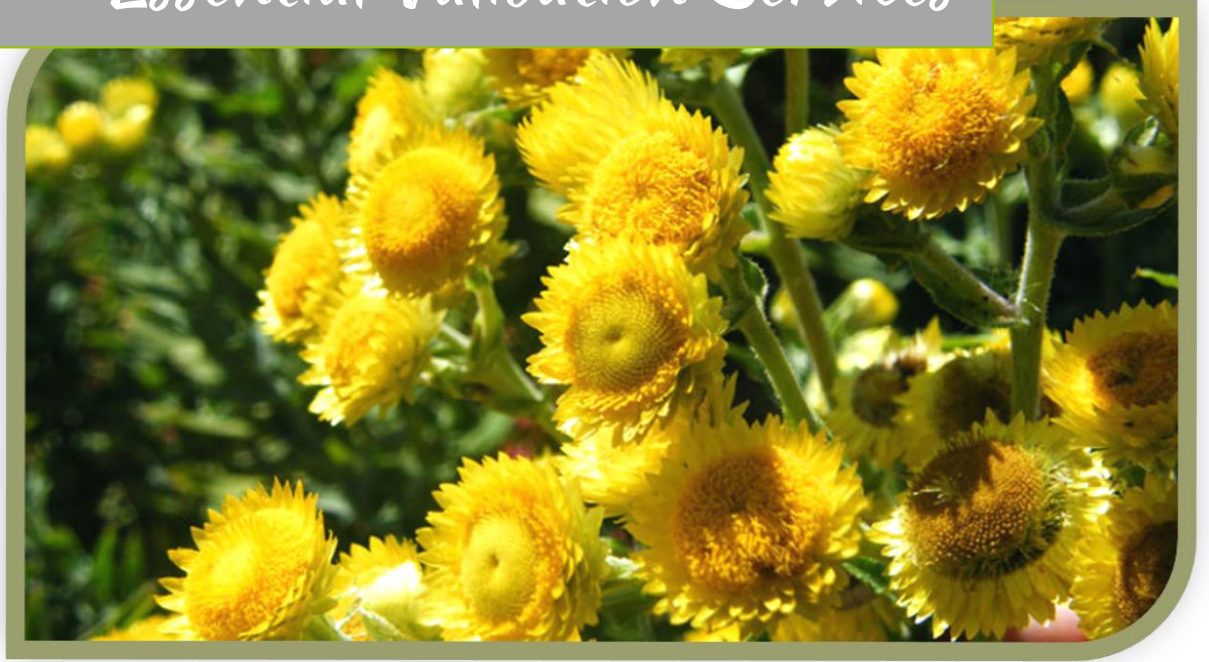




Essential Validation Services





Sample:

Client: | Nature's Fusions
Sample: | Helichrysum Italicum (Helichrysum Italicum)
Batch # | EQ1
CAS Number | 90045-56-0
Type: | Essential Oil

Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.
- This oil meets the expected profile for genuine essential oil of Helichrysum Italicum (Helichrysum Italicum).



X 

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

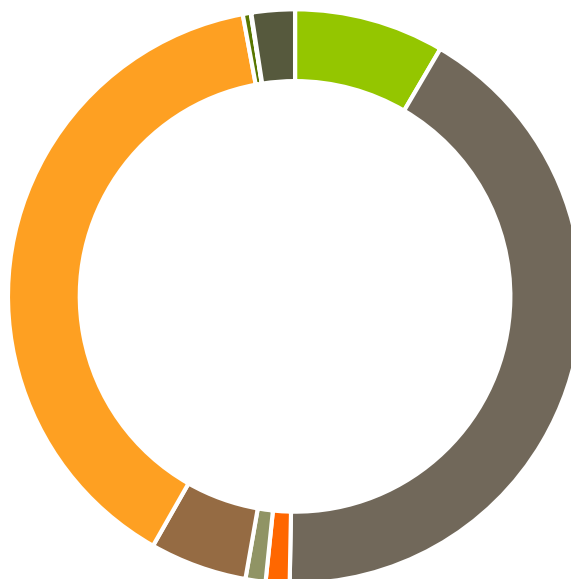
Summary of Analyses

A fresh sample of Helichrysum Italicum (Helichrysum Italicum) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.



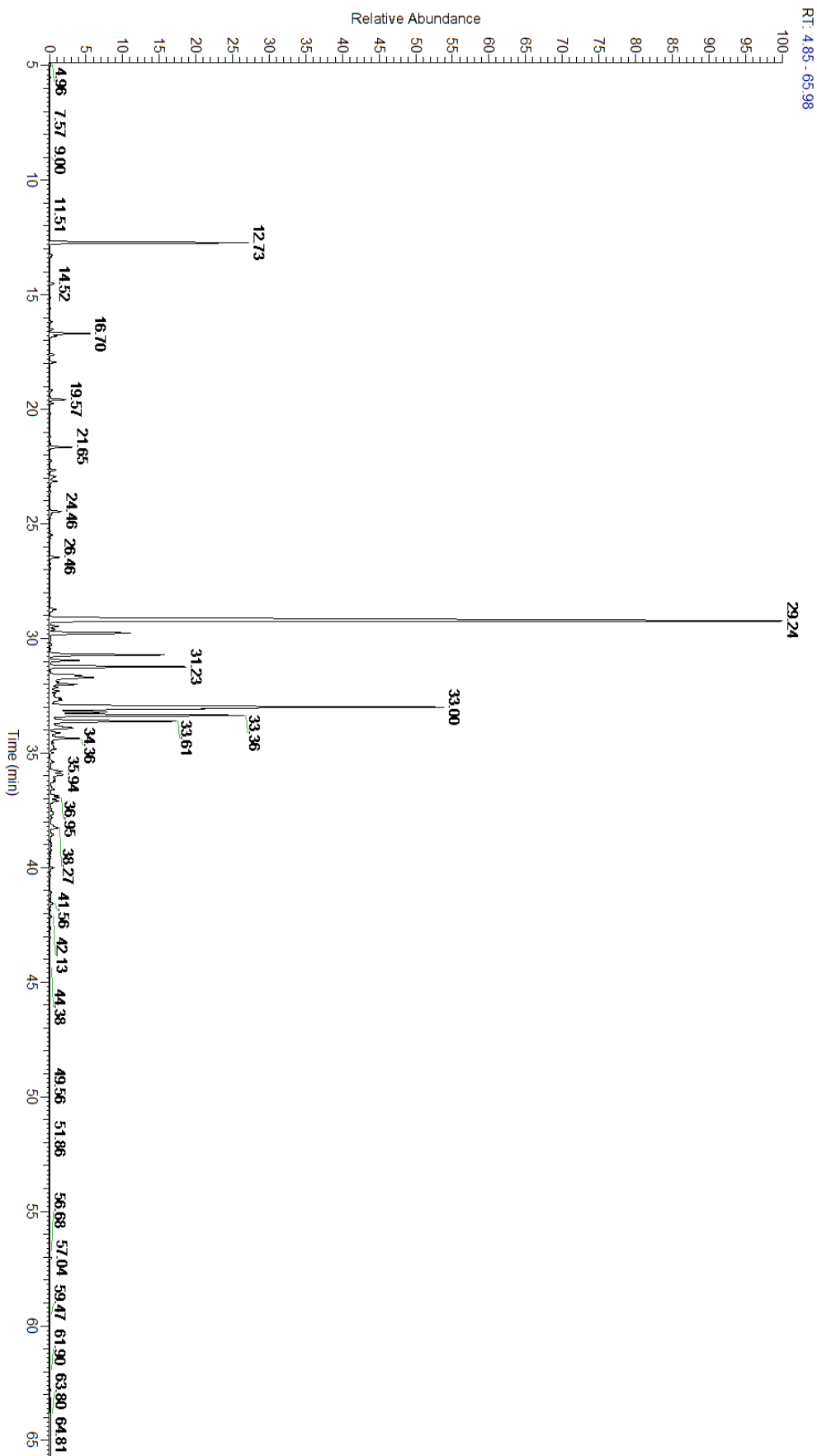
Main Compounds	Percentages
Neryl acetate	34.98%
gamma-Curcumene	15.02%
beta-Selinene	6.00%
alpha-Pinene	5.56%
beta-Caryophyllene	4.17%
alpha-Selinene	4.00%
Italicene	3.62%
ar-Curcumene	3.20%
Geranyl acetate	2.75%
Italidione I	1.97%
Italidione II	1.80%
Limonene	1.16%
delta-Cadinene	1.02%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
8.45%	41.85%	1.34%	1.13%	5.47%
Esters	Ethers	Aldehydes	Phenols	Other
38.84%	0.45%	0.03%	0.00%	2.44%



- Monoterpenes
- Sesquiterpenes
- Monoterpenols
- Sesquiterpenols
- Ketones
- Esters
- Ethers
- Phenols
- Other

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Total Percentage		97.66%			
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	12.73	5.56%	alpha-Pinene	936.10	Monoterpene
2	13.27	0.11%	alpha-Fenchene	946.00	Monoterpene
3	14.52	0.12%	beta-Pinene	974.00	Monoterpene
4	15.13	0.02%	Myrcene	989.20	Monoterpene
5	15.61	0.02%	alpha-Phellandrene	1002.00	Monoterpene
6	16.18	0.06%	alpha-Terpinene	1014.00	Monoterpene
7	16.51	0.10%	para-Cymene	1024.30	Monoterpene
8	16.70	1.16%	Limonene	1029.50	Monoterpene
9	16.80	0.18%	1,8-Cineole	1031.80	Monoterpene Ether
10	17.50	0.01%	(E)-beta-Ocimene	1047.70	Monoterpene
11	17.61	0.12%	Isobutyl angelate	1053.75	Aliphatic Ester
12	17.94	0.18%	gamma-Terpinene	1054.00	Monoterpene
13	19.17	0.10%	Terpinolene	1092.10	Monoterpene
14	19.57	0.47%	Linalool	1099.00	Monoterpenol
15	19.74	0.11%	2-Methylbutyl 2-methylbutyrate	1102.10	Aliphatic Ester
16	19.89	0.01%	endo-Fenchol	1114.00	Monoterpenol
17	21.20	0.03%	trans-Pinocarveol	1143.75	Monoterpenol
18	21.65	0.64%	Isoamyl tiglate	1152.50	Aliphatic Ester
19	22.24	0.06%	Borneol	1168.71	Monoterpenol
20	22.66	0.19%	Terpinen-4-ol	1180.57	Monoterpenol
21	22.94	0.24%	4,6-Dimethyl-3,5- octanedione	1186.00	beta-Diketone
22	23.14	0.22%	alpha-Terpineol	1191.71	Monoterpenol
23	23.60	0.03%	Decanal	1206.57	Aliphatic Aldehyde
24	24.46	0.36%	Nerol	1230.67	Monoterpenol
25	26.46	0.28%	UK Helichrysum		
26	28.73	0.21%	alpha-Terpinyl acetate	1353.00	Monoterpene Ether
27	29.24	34.98%	Neryl acetate	1362.90	Monoterpene Ester
28	29.47	0.28%	alpha-Ylangene	1371.33	Sesquiterpene
29	29.61	0.16%	Isodene	1375.00	Sesquiterpene
30	29.77	2.75%	Geranyl acetate	1379.20	Monoterpene Ester
31	30.11	0.01%	Hexyl hexanoate	1384.00	Aliphatic Ester
32	30.27	0.05%	beta-Elemene	1389.20	Sesquiterpene
33	30.71	3.62%	Italicene	1401.10	Sesquiterpene
34	30.96	0.87%	cis-alpha-Bergamotene	1411.50	Sesquiterpene
35	31.23	4.17%	beta-Caryophyllene	1427.14	Sesquiterpene
36	31.61	0.85%	trans-alpha-Bergamotene	1435.00	Sesquiterpene
37	31.69	1.97%	Italidione I	1444.50	beta-Diketone
38	31.90	0.23%	Neryl propionate	1448.50	Monoterpene Ester
39	32.00	0.71%	(Z)-beta-Farnesene	1453.40	Sesquiterpene
40	32.14	0.18%	(E)-beta-Farnesene	1456.29	Sesquiterpene
41	32.30	0.19%	alpha-Humulene	1461.43	Sesquiterpene
42	32.43	0.07%	gamma-Selinene	1465.50	Sesquiterpene
43	32.61	0.31%	allo-Aromadendrene	1471.00	Sesquiterpene



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44	32.69	0.29%	gamma-Gurjunene	1473.17	Sesquiterpene
45	32.77	0.03%	beta-Acoradiene	1475.00	Sesquiterpene
46	33.00	15.02%	gamma-Curcumene	1476.00	Sesquiterpene
47	33.07	3.20%	ar-Curcumene	1480.50	Sesquiterpene
48	33.21	1.80%	Italidione II	1481.50	beta-Diketone
49	33.36	6.00%	beta-Selinene	1487.57	Sesquiterpene
50	33.61	4.00%	alpha-Selinene	1492.50	Sesquiterpene
51	33.91	1.01%	beta-Curcumene	1512.00	Monoterpene
52	34.12	0.37%	gamma-Cadinene	1515.29	Sesquiterpene
53	34.36	1.02%	delta-Cadinene	1524.14	Sesquiterpene
54	34.45	0.06%	Zonarene	1527.00	Sesquiterpene
55	34.56	0.09%	trans-Calamenene	1529.50	Sesquiterpene
56	34.68	0.06%	Italicense ether	1534.50	Sesquiterpene Ether
57	34.74	0.14%	trans-gamma-Bisabolene	1535.65	Sesquiterpene
58	34.82	0.17%	alpha-Cadinene	1537.86	Sesquiterpene
59	35.39	0.14%	(Z)-Nerolidol	1542.25	Sesquiterpenol
60	35.79	0.48%	Italidione III	1571.00	beta-Diketone
61	35.94	0.63%	Italidione III isomer	1573.50	beta-Diketone
62	36.13	0.21%	Italidione III isomer II	1582.00	beta-Diketone
63	36.24	0.14%	Italidione III isomer III	1588.00	beta-Diketone
64	36.57	0.12%	Guaiol	1603.86	Sesquiterpenol
65	36.86	0.24%	10-epi-gamma-Eudesmol	1620.00	Sesquiterpenol
66	37.60	0.17%	1-epi-Cubenol	1628.00	Sesquiterpenol
67	37.81	0.07%	T-Cadinol	1640.43	Sesquiterpenol
68	38.27	0.39%	11-Selinenol-4, alpha	1655.50	Sesquiterpenol
69	40.01	0.10%	Oleic acid	2134.00	Fatty Acid