

### Sample Information

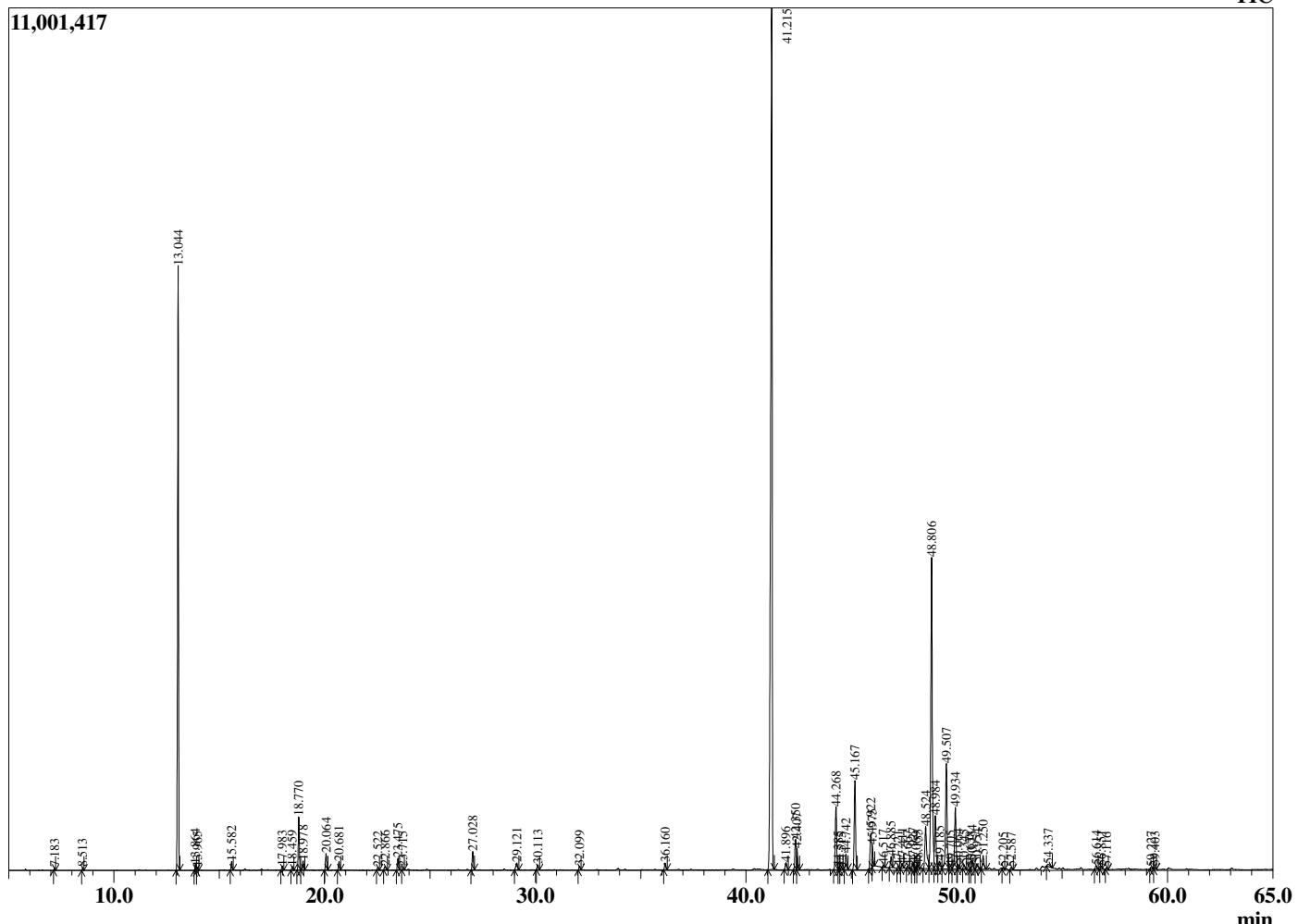
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 5/14/2020 10:19:50 PM  
 Sample Type : Essential Oil  
 Sample Name : Helichrysum - Barefut  
 Sample ID : 0105  
 Injection Volume : 0.10  
 Instrument ID: : GC-3



### Peak Report TIC

R.Time	Name	Area%
7.183	2-Methyl-2-heptene	0.06
8.513	4-Methyl 3-hexanone	0.06
13.044	alpha-Pinene	16.49
13.864	alpha-Fenchene	0.16
13.965	Camphepane	0.09
15.582	beta-Pinene	0.25
17.983	alpha-Terpinene	0.12
18.459	para-Cymene	0.11
18.770	Limonene	1.58
18.978	1,8-cineole	0.30
20.064	Isobutyl angelate	0.51
20.681	gamma-Terpinene	0.27
22.522	Terpinolene	0.10
22.866	Isobutyl tiglate	0.14
23.475	Linalool	0.37
23.715	2-Methylbutyl-2-methylbutyrate	0.08
27.028	Isoamyl tiglate	0.62
29.121	Italidione	0.33
30.113	alpha-Terpineol	0.16
32.099	Nerol	0.13
36.160	Hexyl angelate	0.24
41.215	Neryl acetate	37.45
41.896	alpha-Ylangene	0.32
42.350	alpha-Copaene	1.34
42.407	Isoitalicene	0.50
44.268	Italicene	2.50
44.385	Unidentified	0.08
44.515	Italicene isomer	0.09
44.742	cis-alpha-Bergamotene	0.58
45.167	beta-Caryophyllene	3.39
45.922	Italidione	1.58
45.975	trans-alpha-Bergamotene	0.58
46.517	6,9-Guaiadiene	0.07
46.885	Neryl propionate	0.39
47.221	trans-beta-Farnesene	0.09
47.411	alpha-Humulene	0.17
47.667	Alloaromadendrene	0.08
47.927	alpha-Acoradiene	0.22
48.069	Unidentified	0.09
48.155	beta-Acoradiene	0.15
48.524	Italidione	2.26
48.806	gamma-Curcumene	13.40
48.984	Ar-Curcumene	2.24
49.185	Unidentified	0.49
49.507	beta-Selinene	4.57
49.705	trans-Murroala-4(14),5-diene	0.16
49.934	alpha-Selinene	2.59
50.064	alpha-Murolene	0.17
50.345	Unidentified	0.16
50.638	beta-Bisabolene	0.07
50.734	beta-Curcumene	0.37
50.954	gamma-Cadinene	0.27
51.250	delta-Cadinene	0.57
52.205	Unidentified	0.07
52.587	trans-alpha-Bisabolene	0.09
54.337	Italidione	0.18
56.614	Unidentified	0.14
56.851	Rosifoliol	0.10
57.116	Unidentified	0.07
59.227	alpha-Eudesmol	0.09
59.403	Unidentified	0.09
		100.00

Chromatogram Helichrysum - Barefut



### Comments:

The analysis of this Helichrysum batch sample meets the expected chemical profile for authentic essential oil of *Helichrysum italicum*. 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.