

Sample Information

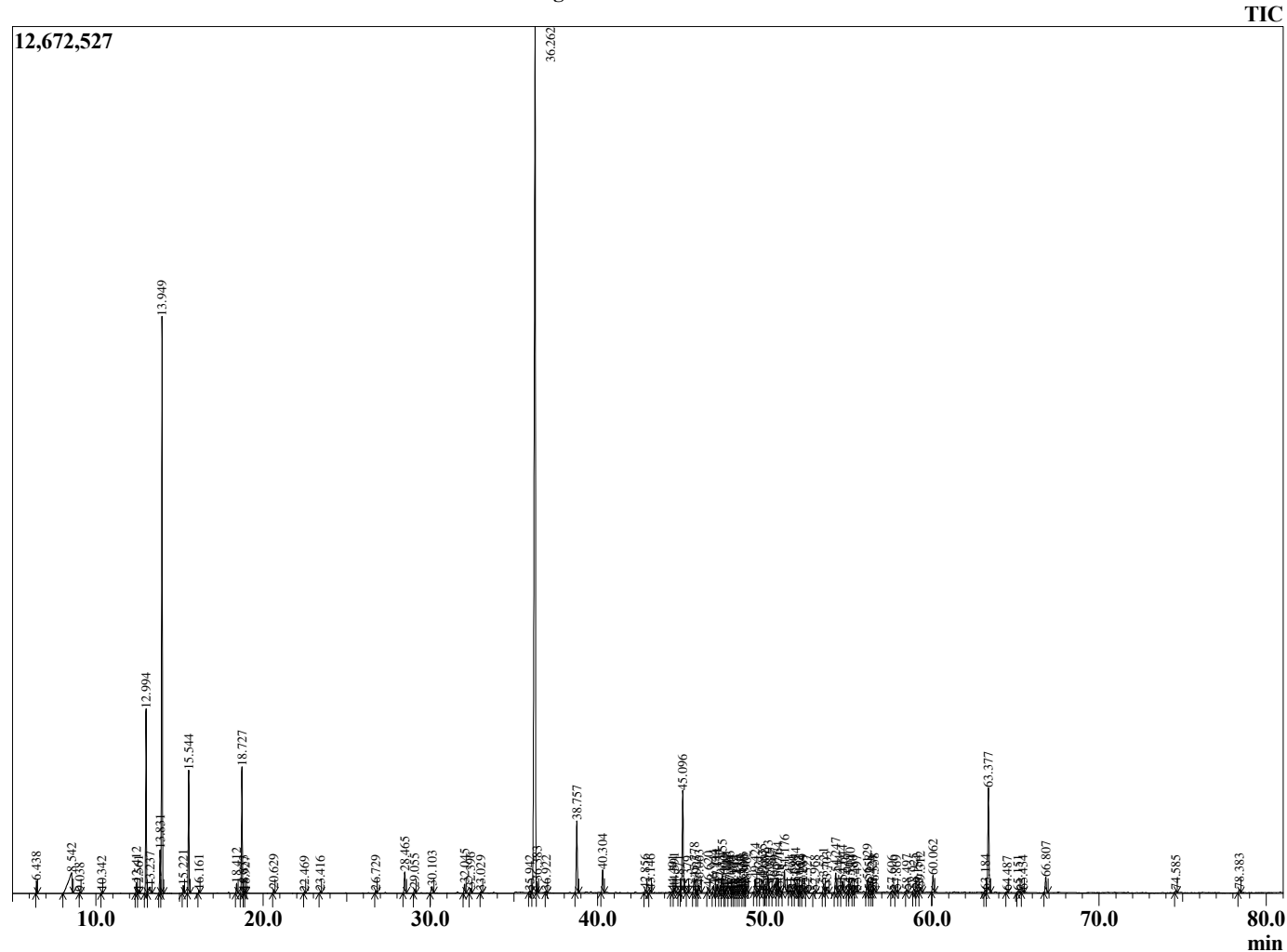
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 10/20/2020 2:03:32 AM
 Sample Type : Essential Oil
 Sample Name : Valerian - Edens Garden
 Sample ID : BA29IAS
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
6.438	Methyl isovalerate	0.21
8.542	Isovaleric acid	2.57
9.038	Ethyl isovalerate	0.03
10.342	Methyl hexanoate	0.04
12.412	Tricyclene	0.26
12.561	alpha-Thujene	0.06
12.994	alpha-Pinene	4.75
13.237	3-Methyl valeric acid	0.45
13.831	alpha-Fenchene	1.23
13.949	Camphene	15.86
15.221	Sabinene	0.20
15.544	beta-Pinene	3.32
16.161	Myrcene	0.07
18.412	para-Cymene	0.27
18.727	Limonene	3.62
18.833	beta-Phellandrene	0.07
18.927	1,8-Cineole	0.04
20.629	gamma-Terpinene	0.11
22.469	Terpinolene	0.04
23.416	Linalool	0.05
26.729	Camphor	0.07
28.465	Borneol	0.69
29.055	Terpinen-4-ol	0.14
30.103	Myrtenol	0.29
32.045	Thymol methyl ether	0.28
32.396	Carvacrol methyl ether	0.16
33.029	Isothymol methyl ether	0.05
35.942	Unidentified	0.05
36.262	Bornyl acetate	38.30
36.383	Isobornyl acetate	0.32
36.922	trans-Pinocarvyl acetate	0.06
38.757	Myrtenyl acetate	2.50
40.304	alpha-Terpinyl acetate	0.82
42.856	beta-Patchoulene	0.13
43.146	beta-Elementene	0.09
44.491	Unidentified	0.06
44.591	Thymohydroquinone dimethyl ether	0.16
44.871	alpha-Cedrene	0.04
45.096	beta-Caryophyllene	3.90
45.379	Unidentified	0.03
45.778	beta-Gurjuekene	0.56
45.925	trans-alpha-Bergamotene	0.06
46.063	alpha-Guaiene	0.30
46.620	(E)-beta-Farnesene	0.19
46.944	Seychellene	0.27
47.144	Valerana-4,7(11)-diene	0.31
47.337	alpha-Humulene	0.27
47.455	Unidentified	0.68
47.600	Alloaromadendrene	0.05
47.710	alpha-Patchoulene	0.16
47.906	Unidentified	0.23
48.000	Unidentified	0.01
48.132	Unidentified	0.02
48.297	Unidentified	0.05
48.430	Unidentified	0.06
48.537	trans-Cadina-1(6),4-diene	0.11
48.698	Itrans-beta-Ionone	0.13
48.800	alpha-Amorphene	0.06
48.902	Ar-Curcumene	0.23
49.424	beta-Selinene	0.48
49.621	trans-Murrola-4(14),5-diene	0.05
49.835	alpha-Selinene	0.66

Chromatogram Valerian - Edens Garden



Comments:

The analysis of this Valerian batch sample meets the expected chemical profile for authentic essential oil of *Valeriana officinalis*. 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.

R.Time	Name	Area%
50.002	alpha-Murolene	0.35
50.193	alpha-Bulnesene	0.65
50.282	Unidentified	0.17
50.597	Cuparene	0.45
50.764	alpha-Alaskene	0.57
50.871	gamma-Cadinene	0.18
51.176	delta-Cadinene	0.87
51.471	Zonarene	0.06
51.690	trans-gamma-Bisabolene	0.06
51.854	Unidentified	0.35
52.032	trans-Cadina-1,4-diene	0.01
52.164	gamma-Cuprenene	0.04
52.289	Unidentified	0.12
52.527	alpha-Calacorene	0.08
52.968	alpha-Elemol	0.09
53.521	Unidentified	0.35
53.703	trans-Nerolidol	0.25
54.247	Unidentified	0.73
54.444	Unidentified	0.06
54.644	Spathulenol	0.43
54.969	Caryophyllene oxide	0.10
55.110	Unidentified	0.37
55.280	Unidentified	0.04
55.497	Unidentified	0.06
56.129	Unidentified	0.46
56.258	Unidentified	0.08
56.424	Rosifoliol	0.04
56.538	Cedrol	0.15
57.606	Unidentified	0.06
57.869	Unidentified	0.08
58.497	Unidentified	0.11
58.925	Unidentified	0.14
59.154	alpha-Cadinol	0.08
59.312	Unidentified	0.23
60.062	Patchouli alcohol	0.63
63.184	Unidentified	0.09
63.377	Valerenal	4.06
64.487	Unidentified	0.04
65.151	Unidentified	0.05
65.434	Unidentified	0.08
66.807	Unidentified	0.61
74.585	Unidentified	0.08
78.383	Unidentified	0.14
		100.00