



Essential Validation Services



Sample:

Client: | Floracopia
Sample: | Juniper (*Juniperus communis*)
Batch # | 89527
CAS Number | 8002-68-4
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 Juniper (*Juniperus communis*).



X 

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

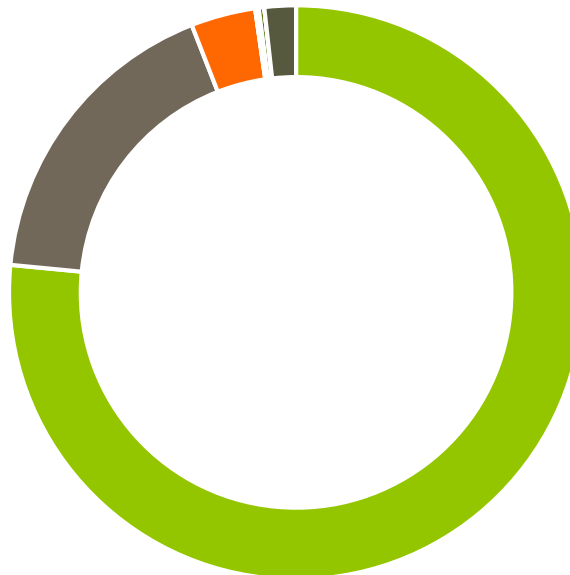
Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

Summary of Analyses

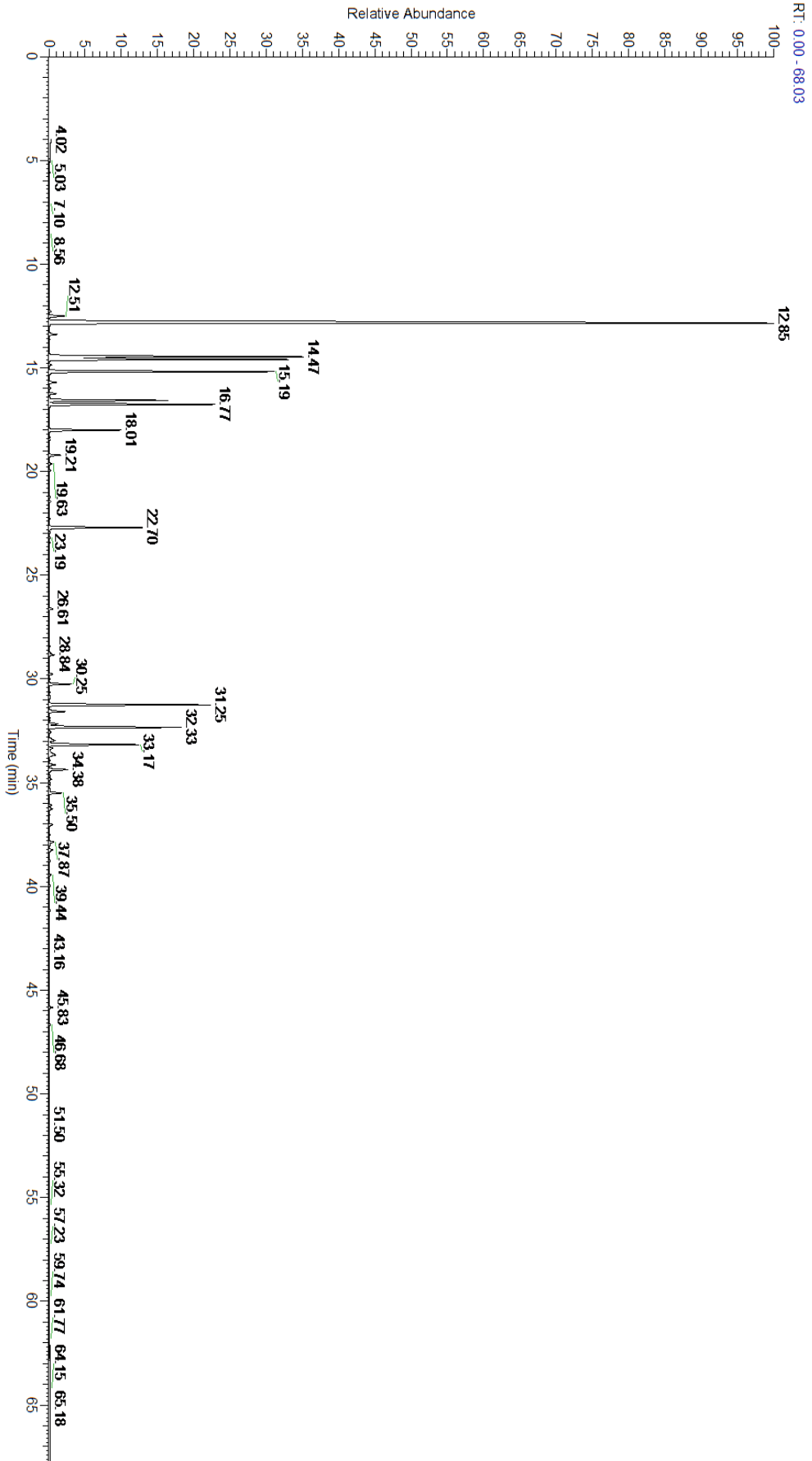
A fresh sample of Juniper (*Juniperus communis*) Essential Oil (10 uL in .5 to .5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.

Main Compounds	Percentages
alpha-Pinene	36.62%
Sabinene	9.83%
beta-Pinene	8.41%
Myrcene	7.43%
beta-Caryophyllene	5.77%
Limonene (Co-Eluting)	5.66%
alpha-Humulene	4.60%
para-Cymene	4.13%
Terpinen-4-ol	3.40%
Germacrene D	3.13%
gamma-Terpinene	2.45%
alpha-Cedrene	0.77%
delta-Cadinene	0.70%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
76.53%	17.55%	3.64%	0.00%	0.07%
Esters	Ethers	Aldehydes	Phenols	Other
0.13%	0.31%	0.00%	0.00%	1.77%



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



Total Percentage		98.23%			
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	12.27	0.07%	Tricyclene	923.00	Monoterpene
2	12.51	0.63%	alpha-Thujene	927.80	Monoterpene
3	12.85	36.62%	alpha-Pinene	936.10	Monoterpene
4	13.39	0.28%	Camphene	950.30	Monoterpene
5	13.63	0.02%	Thuja-2,4(10)-diene	953.00	Monoterpene
6	14.47	9.83%	Sabinene	973.00	Monoterpene
7	14.60	8.41%	beta-Pinene	974.00	Monoterpene
8	15.19	7.43%	Myrcene	989.20	Monoterpene
9	15.70	0.25%	alpha-Phellandrene	1002.00	Monoterpene
10	15.98	0.04%	delta-3-Carene	1008.00	Monoterpene
11	16.25	0.24%	alpha-Terpinene	1014.00	Monoterpene
12	16.57	4.13%	para-Cymene	1024.30	Monoterpene
13	16.77	5.66%	Limonene	1029.50	Monoterpene
14	16.78	Co-Eluting	1,8-Cineole	1031.80	Monoterpene Ether
15	17.13	0.01%	(Z)-beta-Ocimene	1037.80	Monoterpene
16	17.55	0.01%	(E)-beta-Ocimene	1047.70	Monoterpene
17	18.01	2.45%	gamma-Terpinene	1054.00	Monoterpene
18	19.21	0.40%	Terpinolene	1092.10	Monoterpene
19	19.63	0.09%	Linalool	1099.00	Monoterpenol
20	19.95	0.05%	alpha-Pinene epoxide	1107.10	Monoterpene
21	21.24	0.05%	trans-Pinocarveol	1143.75	Monoterpenol
22	21.45	0.07%	Camphor	1147.55	Monoterpene Ketone
23	22.29	0.02%	Borneol	1168.71	Monoterpenol
24	22.70	3.40%	Terpinen-4-ol	1180.57	Monoterpenol
25	23.19	0.05%	alpha-Terpineol	1191.71	Monoterpenol
26	23.42	0.03%	Myrtenol	1198.00	Monoterpenol
27	26.61	0.13%	Bornyl acetate	1288.29	Monoterpene Ester
28	28.84	0.18%	alpha-Terpinyl acetate	1353.00	Monoterpene Ether
29	29.76	0.13%	alpha-Copaene	1379.00	Sesquiterpene
30	30.25	0.77%	alpha-Cedrene	1410.75	Sesquiterpene
31	31.25	5.77%	beta-Caryophyllene	1427.14	Sesquiterpene
32	31.57	0.62%	gamma-Elemene	1434.00	Sesquiterpene
33	32.16	0.30%	(E)-beta-Farnesene	1456.29	Sesquiterpene
34	32.33	4.60%	alpha-Humulene	1461.43	Sesquiterpene
35	32.57	0.05%	allo-Aromadendrene	1471.00	Sesquiterpene
36	32.96	0.22%	gamma-Murolene	1478.86	Sesquiterpene
37	33.17	3.13%	Germacrene D	1484.71	Sesquiterpene
38	33.35	0.14%	beta-Selinene	1487.57	Sesquiterpene
39	33.53	0.06%	alpha-Selinene	1492.50	Sesquiterpene
40	33.68	0.39%	alpha-Murolene	1500.25	Sesquiterpene
41	34.13	0.21%	gamma-Cadinene	1515.29	Sesquiterpene
42	34.38	0.70%	delta-Cadinene	1524.14	Sesquiterpene
43	35.50	0.46%	Germacrene B	1557.71	Sesquiterpene

