

## Sample:

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Client: | Nature's Gift  
Sample: | Grapefruit, White (Citrus paradisi)  
Batch # | IS-58772  
CAS Number | 8016-20-4  
Type: | Essential Oil

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## Conclusion:

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



X



Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

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

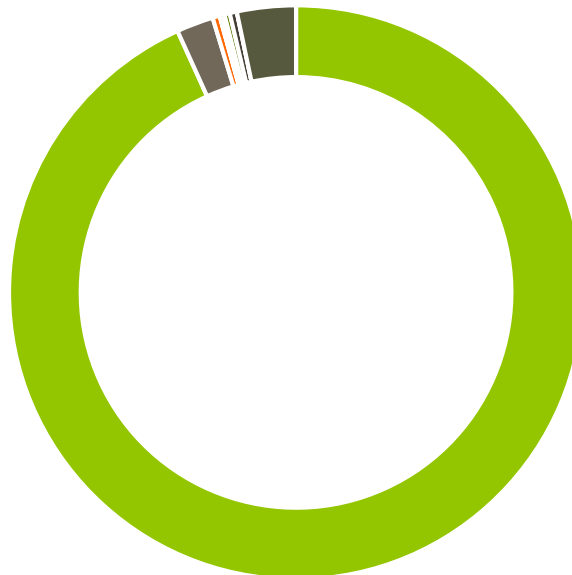
## Summary of Analyses

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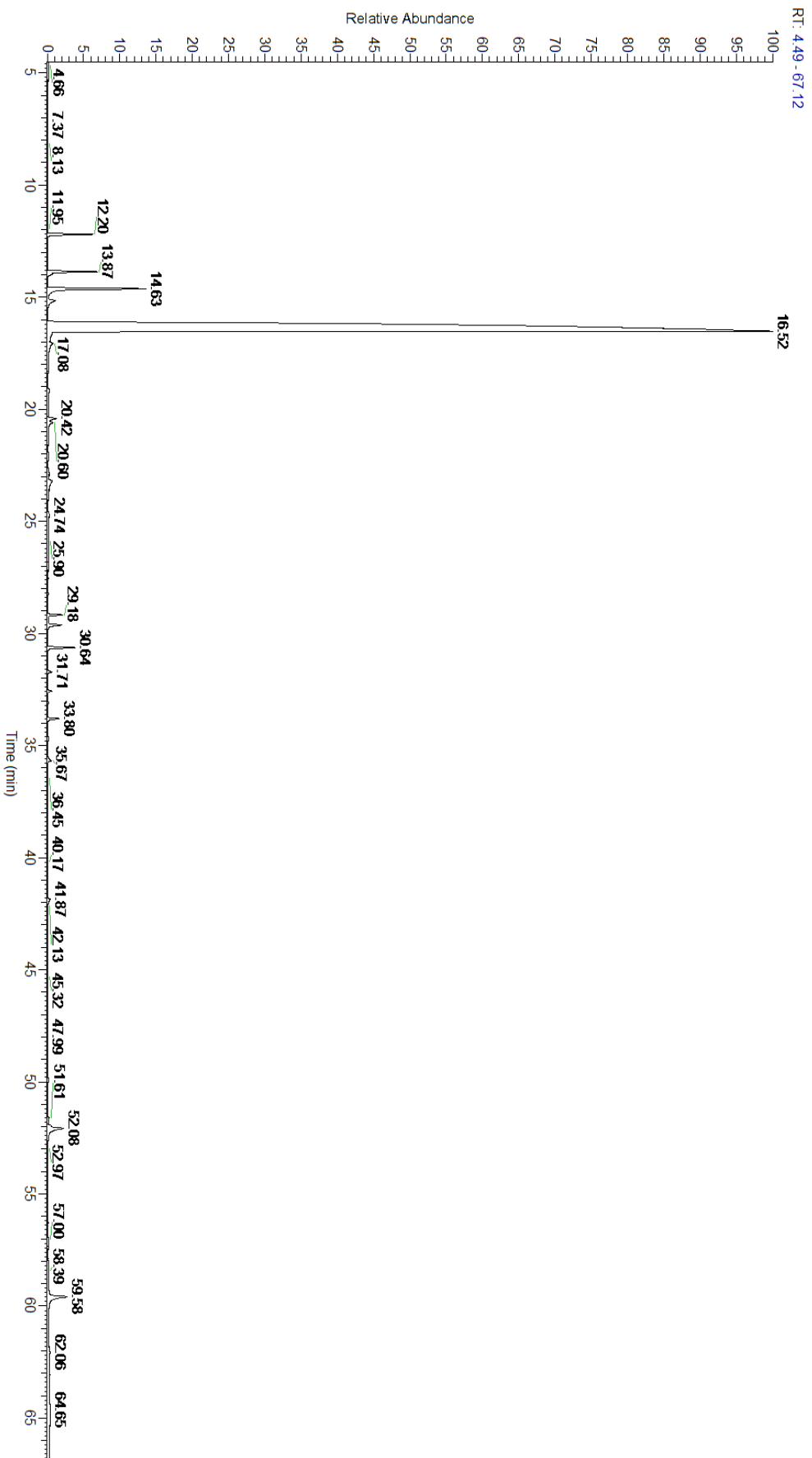
A fresh sample of Grapefruit, White (Citrus paradisi) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.

Main Compounds	Percentages
Limonene (Co-Eluting)	86.51%
Myrcene	3.38%
Sabinene	1.37%
alpha-Pinene	1.22%
beta-Caryophyllene	0.76%
beta-Cubebene	0.46%
alpha-Phellandrene	0.43%
alpha-Copaene	0.40%
delta-Cadinene	0.35%
Decanal	0.32%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
93.23%	2.08%	0.40%	0.02%	0.19%
Esters	Ethers	Aldehydes	Phenols	Other
0.07%	0.30%	0.40%	0.00%	3.32%



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



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Total Percentage		96.75%			
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	12.20	1.22%	alpha-Pinene	936.10	Monoterpene
2	13.87	1.37%	Sabinene	973.00	Monoterpene
3	13.98	0.13%	beta-Pinene	974.00	Monoterpene
4	14.63	3.38%	Myrcene	989.20	Monoterpene
5	14.94	0.03%	Octanal	998.00	Aliphatic Aldehyde
6	15.16	0.43%	alpha-Phellandrene	1002.00	Monoterpene
7	16.52	86.51%	Limonene	1029.50	Monoterpene
8	16.53	Co-Eluting	beta-Phellandrene	1030.00	Monoterpene
9	17.08	0.18%	(E)-beta-Ocimene	1047.70	Monoterpene
10	17.35	0.01%	gamma-Terpinene	1054.00	Monoterpene
11	19.14	0.11%	Linalool	1099.00	Monoterpenol
12	19.43	0.01%	Nonanal	1104.00	Aliphatic Aldehyde
13	20.42	0.28%	cis-Limonene oxide	1136.00	Monoterpene Ether
14	20.60	0.25%	trans-para-Menth-2-en-1-ol	1141.75	Monoterpenol
15	21.25	0.04%	Citronellal	1154.50	Monoterpene Aldehyde
16	22.71	0.02%	alpha-Terpineol	1191.71	Monoterpenol
17	23.22	0.32%	Decanal	1206.57	Aliphatic Aldehyde
18	24.70	0.04%	Carvone	1248.14	Monoterpene Ketone
19	24.92	0.02%	Geraniol	1255.29	Monoterpenol
20	28.26	0.02%	alpha-Terpinyl acetate	1353.00	Monoterpene Ether
21	29.18	0.40%	alpha-Copaene	1379.00	Sesquiterpene
22	29.41	0.07%	Geranyl acetate	1379.20	Monoterpene Ester
23	29.63	0.46%	beta-Cubebene	1390.50	Sesquiterpene
24	30.64	0.76%	beta-Caryophyllene	1427.14	Sesquiterpene
25	32.57	0.11%	Germacrene D	1484.71	Sesquiterpene
26	33.80	0.35%	delta-Cadinene	1524.14	Sesquiterpene
27	34.68	0.02%	Elemol	1538.00	Sesquiterpenol
28	41.87	0.15%	Nootkatone	1807.00	Sesquiterpene Ketone
29	49.88	0.06%	Osthole	2145.00	Coumarin