

Client



Source



Nutmeg (*Myristica fragrans*)
NF-NUTM-21-A

Sample

Nutmeg (*Myristica fragrans*)
Batch #:..... NF-NUTM-21-A
Type:..... Essential Oil
CAS Number:... 8008-45-5
Nature's Fusions

Client



Website

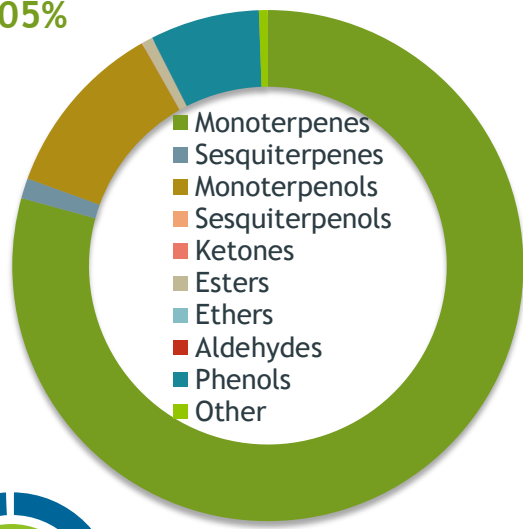


Primary

21.15% Sabinene
15.63 alpha-Pinene
13.30% beta-Pinene

Monoterpenes

79.05%



Percentage Identified

Result



Conclusion

No adulterants, diluents, or contaminants were detected via this method. This oil meets the expected profile for genuine Essential Oil of Nutmeg (*Myristica fragrans*)

Internal Number: | EVS-4219



Essential Validation Services

747 SW 2nd Ave IMB 12 Suite 306
Gainesville, FL 32601

317.361.5044 | <https://essentialvalidationservices.com/>

Alan Chastain

Monoterpenes	79.05%	79.05%
Sesquiterpenes		1.27%
Monoterpenols	11	11.23%
Sesquiterpenols		0.01%
Ketones		0.02%
Esters		0.67%
Ethers		0.03%
Aldehydes		0.01%
Phenols	6	6.89%
Other		0.56%

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Client


 Nature's FUSIONS
ESSENTIAL OILS

Source

Nutmeg (*Myristica fragrans*)

NF-NUTM-21-A

Total Percentage		99.47%		
Number	RT	Area %	Compound Name	Chemical Family
1	5.27	0.01%	Isovaleric acid	Aliphatic Acid
2	5.74	0.01%	cis-Hex-3-en-1-ol	Aliphatic Alcohol
3	6.37	0.01%	Isoamyl acetate	Aliphatic Ester
4	7.79	0.02%	Hashishene	Monoterpene
5	7.87	0.01%	Tricyclene	Monoterpene
6	8.04	2.68%	alpha-Thujene	Monoterpene
7	8.32	15.63%	alpha-Pinene	Monoterpene
8	8.90	0.31%	Camphene	Monoterpene
9	9.07	0.01%	Verbenene	Monoterpene
10	9.92	21.15%	Sabinene	Monoterpene
11	10.07	13.30%	beta-Pinene	Monoterpene
12	10.41	0.01%	6-Methyl-5-hepten-2-ol	Aliphatic Alcohol
13	10.61	2.26%	Myrcene	Monoterpene
14	11.15	0.04%	Pseudolimonene	Monoterpene
15	11.25	0.81%	alpha-Phellandrene	Monoterpene
16	11.37	2.56%	delta-3-Carene	Monoterpene
17	11.73	3.01%	alpha-Terpinene	Monoterpene
18	11.87	0.01%	meta-Cymene	Monoterpene
19	12.06	1.40%	para-Cymene	Monoterpene
20	12.30	9.47%	Limonene	Monoterpene
21	12.64	0.03%	(Z)-beta-Ocimene	Monoterpene
22	13.10	0.02%	(E)-beta-Ocimene	Monoterpene
23	13.60	4.39%	gamma-Terpinene	Monoterpene
24	14.10	0.30%	trans-Sabinene hydrate	Monoterpenol
25	14.81	1.86%	Terpinolene	Monoterpene
26	15.01	0.07%	para-Cymenene	Monoterpene
27	15.53	1.16%	Linalool	Monoterpenol
28	15.84	0.01%	alpha-Pinene oxide	Monoterpene Ether
29	16.32	0.02%	Fenchol	Monoterpenol
30	16.57	0.17%	cis-para-Menth-2-en-1-ol	Monoterpenol
31	17.28	0.02%	trans-Pinocarveol	Monoterpenol
32	17.41	0.13%	trans-para-Menth-2-en-1-ol	Monoterpenol
33	17.54	0.01%	Camphor	Monoterpene Ketone
34	17.74	0.02%	beta-Terpineol	Monoterpenol
35	17.92	0.01%	Camphene hydrate	Monoterpenol

Client


Nature's FUSIONS
 ESSENTIAL OILS

Source

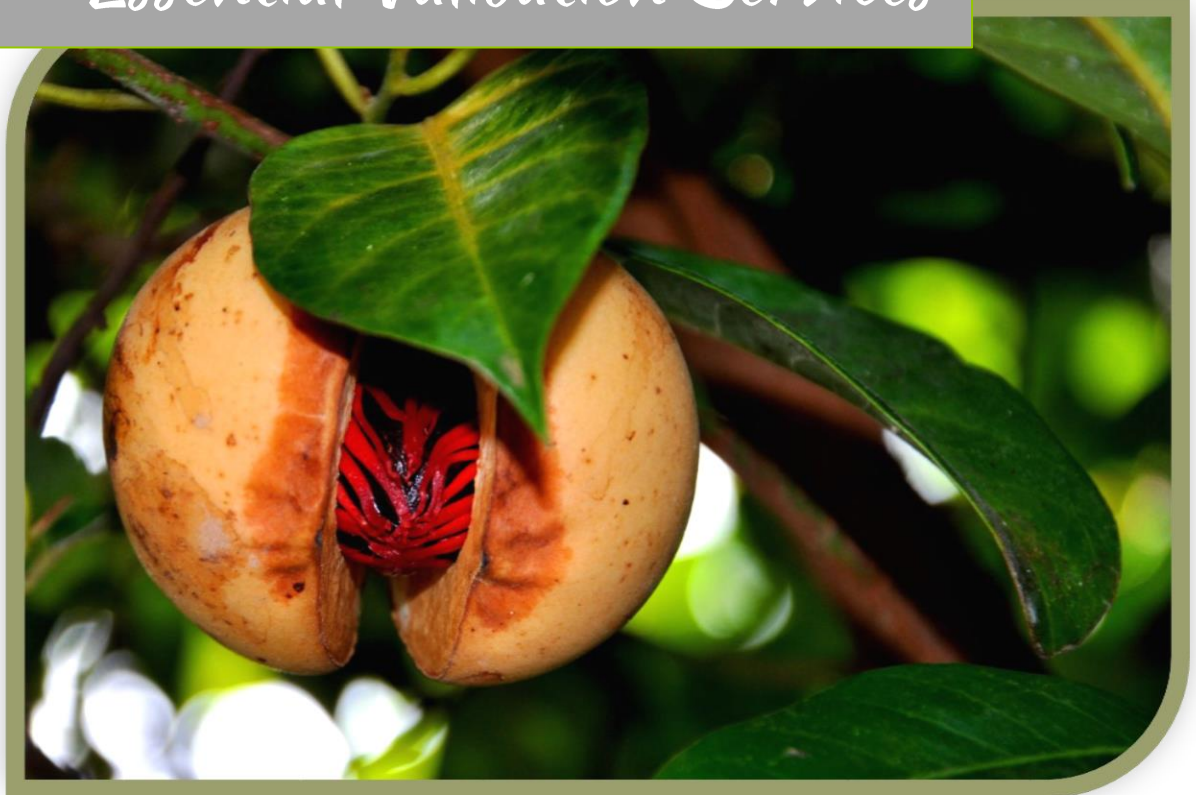
Nutmeg (*Myristica fragrans*)

NF-NUTM-21-A

Number	RT	Area %	Compound Name	Chemical Family
36	18.336	0.01%	para-Mentha-1,5-dien-8-ol	Monoterpenol
37	18.58	Co-Eluting	trans-beta-Terpineol	Monoterpenol
38	18.73	0.05%	Borneol	Monoterpenol
39	19.21	7.97%	Terpinen-4-ol	Monoterpenol
40	19.39	0.01%	Cryptone	Monoterpene Ketone
41	19.48	0.04%	para-Cymen-8-ol	Monoterpenol
42	19.84	1.00%	alpha-Terpineol	Monoterpenol
43	20.07	0.05%	gamma-Terpineol	Monoterpenol
44	20.49	0.05%	trans-Piperitol	Monoterpenol
45	21.24	0.02%	Nerol	Monoterpenol
46	21.39	0.04%	Citronellol	Monoterpenol
47	21.75	0.01%	beta-Cyclocitral	Monoterpene
48	22.44	0.14%	Geraniol	Monoterpenol
49	23.39	0.03%	trans-Ascaridol glycol	Monoterpenol
50	23.48	0.01%	Phellandral	Monoterpene Aldehyde
51	23.86	0.11%	Bornyl acetate	Monoterpene Ester
52	24.06	0.85%	Safrole	Phenylpropanoid
53	24.41	0.03%	Terpinen-4-yl acetate	Monoterpene Ester
54	24.52	0.01%	Citronellyl formate	Monoterpene Ester
55	24.63	Co-Eluting	Carvacrol	Monoterpenol
56	26.61	0.23%	alpha-Terpinyl acetate	Monoterpene Ester
57	26.81	0.28%	Eugenol	Phenylpropanoid
58	27.20	0.04%	Neryl acetate	Monoterpene Ester
59	27.81	0.43%	alpha-Copaene	Sesquiterpene
60	28.05	0.24%	Geranyl acetate	Monoterpene Ester
61	28.42	0.02%	beta-Elemene	Sesquiterpene
62	28.95	1.28%	Methyl eugenol	Phenylpropanoid
63	29.60	0.37%	beta-Caryophyllene	Sesquiterpene
64	30.06	0.01%	beta-Copaene	Sesquiterpene
65	30.27	0.09%	trans-alpha-Bergamotene	Sesquiterpene
66	30.38	0.01%	Aromadendrene	Sesquiterpene
67	30.80	0.08%	(E)-Isoeugenol	Phenylpropanoid
68	31.07	0.05%	alpha-Humulene	Sesquiterpene
69	31.15	0.03%	(E)-beta-Farnesene	Sesquiterpene
70	31.81	0.02%	trans-Cadina-1(6),4-diene	Sesquiterpene
71	31.94	0.03%	gamma-Murolene	Sesquiterpene



Essential Validation Services





Sample:

Client: | Nature's Fusions
Sample: | Nutmeg (Myristica fragrans)
Batch # | 1603116
CAS Number | 8008-45-5
Type: | Essential Oil

Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.



X *Adam Christen*

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

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

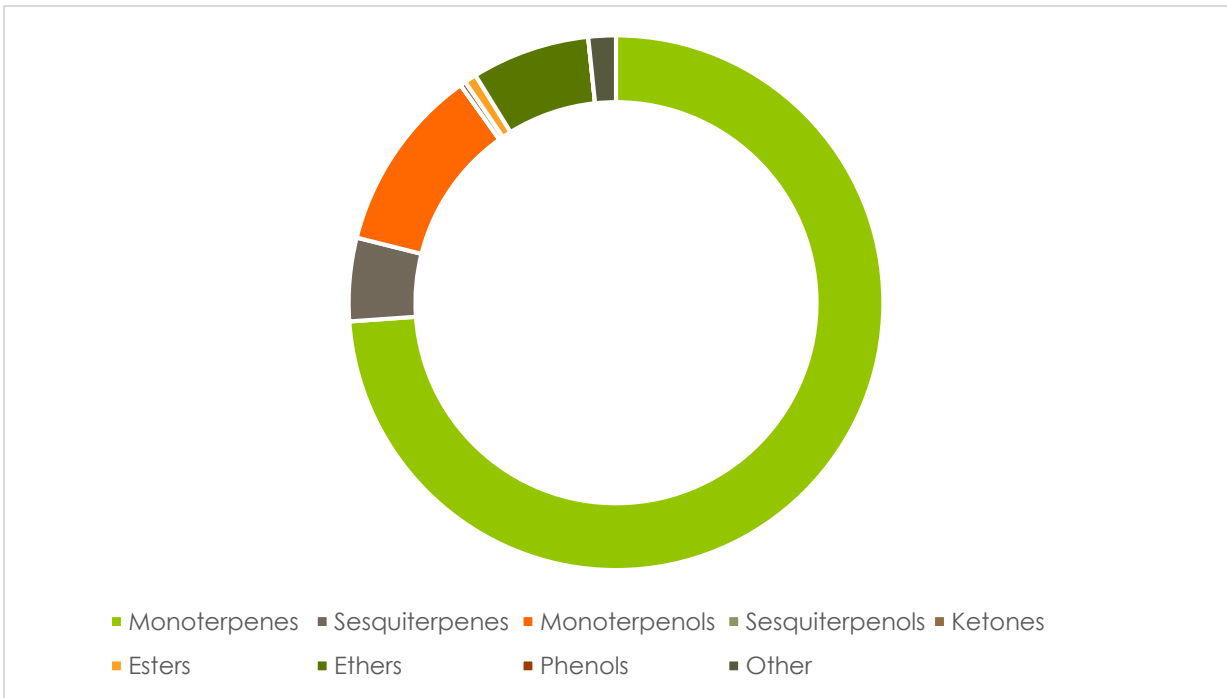
Summary of Analyses

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

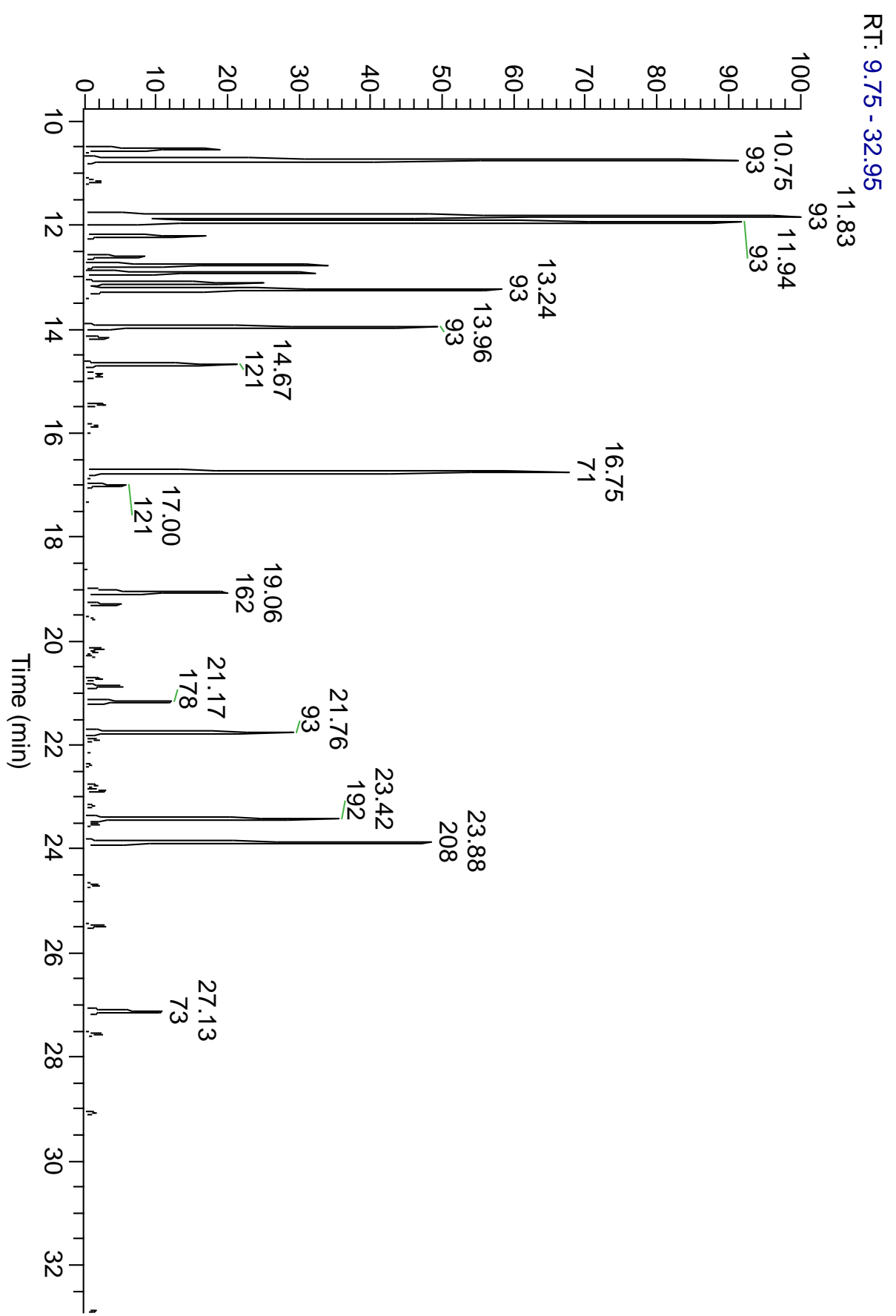


Main Compounds	Percentages
Sabinene	14.87%
beta-Pinene	11.42%
alpha-Pinene	11.40%
Terpinen-4-ol	8.08%
Limonene	7.52%
gamma-Terpinene	5.26%
delta-3-Carene	3.66%
alpha-Terpinene	3.34%
beta-Caryophyllene	3.18%
para-Cymene	2.74%
Safrole	2.32%
Terpinolene	2.28%
alpha-Thujene	2.14%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
67.67%	4.61%	10.27%	0.00%	0.31%
Esters	Ethers	Aldehydes	Phenols	Other
0.66%	6.55%	0.00%	7.28%	1.52%



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Total Percentage	98.87%				
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	10.42	0.03%	Tricyclene	923.20	Monoterpenes
2	10.54	2.14%	alpha-Thujene	927.80	Monoterpenes
3	10.75	11.40%	alpha-Pinene	936.10	Monoterpenes
4	11.15	0.32%	Camphene	953.30	Monoterpenes
5	11.83	14.87%	Sabinene	973.00	Monoterpenes
6	11.94	11.42%	beta-Pinene	977.70	Monoterpenes
7	12.21	1.70%	Myrcene	989.20	Monoterpenes
8	12.60	0.89%	alpha-Phellandrene	1004.10	Monoterpenes
9	12.77	3.66%	delta-3-Carene	1011.30	Monoterpenes
10	12.92	3.34%	alpha-Terpinene	1017.10	Monoterpenes
11	13.11	2.74%	para-Cymene	1024.30	Monoterpenes
12	13.24	7.52%	Limonene	1029.50	Monoterpenes
13	13.24	Co-Eluting	beta-Phellandrene	1030.00	Monoterpenes
14	13.24	Co-Elute	1,8-Cineole	1031.80	Ethers
15	13.37	0.07%	(Z)-beta-Ocimene	1037.80	Monoterpenes
16	13.64	0.03%	(E)-beta-Ocimene	1047.70	Monoterpenes
17	13.96	5.26%	gamma-Terpinene	1063.71	Monoterpenes
18	14.17	0.34%	cis-Sabinene hydrate	1066.50	Monoterpenols
19	14.67	2.28%	Terpinolene	1089.43	Monoterpenes
20	14.86	0.25%	Linalool	1099.00	Monoterpenols
21	14.91	0.26%	Fenchol	1112.50	Monoterpenols
22	15.45	0.29%	cis-para-Menth-2-en-1-ol	1123.10	Monoterpenols
23	15.54	0.04%	Alloocimene	1129.90	Other
24	15.86	0.24%	trans-para-Menth-2-en-1-ol	1141.75	Monoterpenols
25	16.75	8.08%	Terpinen-4-ol	1180.57	Monoterpenols
26	16.84	0.09%	para-Cymen-8-ol	1184.43	Monoterpenols
27	17.00	0.62%	alpha-Terpineol	1191.71	Monoterpenols
28	17.35	0.07%	trans-Piperitol	1208.50	Monoterpenols
29	17.66	0.03%	Citronellol	1230.10	Monoterpenols
30	18.23	0.03%	Linalyl acetate	1263.80	Esters
31	19.06	2.32%	Safrole	1290.14	Ethers
32	19.29	0.50%	4-Pentylanisol	1305.75	Phenols
33	20.14	0.24%	Citronellyl acetate	1357.83	Esters
34	20.21	0.17%	alpha-Terpinyl acetate	1353.00	Esters
35	20.30	0.12%	alpha-Copaene	1379.00	Sesquiterpenes
36	20.73	0.22%	Geranyl acetate	1384.71	Esters
37	20.87	0.52%	beta-Cubebene	1390.50	Sesquiterpenes
38	21.17	1.24%	Methyleugenol	1407.29	Phenols
39	21.76	3.18%	beta-Caryophyllene	1427.14	Sesquiterpenes
40	21.90	0.19%	trans-alpha-Bergamotene	1435.00	Sesquiterpenes
41	22.14	0.08%	(E)-beta-Farnesene	1456.29	Sesquiterpenes
42	22.38	0.09%	alpha-Humulene	1461.43	Sesquiterpenes

