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Balancing Body, Mind and Spirit with Pure Essential Oils

Since 1995

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Bitter Orange

Citrus aurantium var amara

Batch No. EG-59158
Egypt

Monoterpenes 89.49%

limonene	86.53
myrcene	1.74
α pinene	0.68
β pinene	0.20
para-cymene	0.16
sabinene	0.06
(E) β ocimene	0.04
para-cymenene	0.03
terpinolene	0.02
(Z) β ocimene	0.01
camphene	0.01
2-carene	0.01

Monoterpenols 5.34%

α terpineol	2.33
trans-carveol	0.52
cis carveol	0.41
(Z) para-mentha-2,8-dien-1-ol	0.39
trans piperitol	0.37
β terpineol	0.36
linalool	0.27
para-cymen-8-ol	0.14
cis-Linalool oxide (5) (furanoid)	0.12
terpinen-4-ol	0.10
trans β terpineol	0.10
ascaridole	0.10
trans-linalool oxide (5) (furanoid)	0.05
perilla alcohol	0.04
(Z) para-mentha-1(7),8-dien-2-ol	0.02
fenchol	0.01
cis-verbenol	0.01

Aldehydes 0.13%

octanal	0.07
decanal	0.04
nonanal	0.01
(E) 2 dodecenal	0.01

Esters 2.21%

1,4 cineole	0.06
6,7 epoxy myrcene	0.03
α pinene oxide	0.01
cis-limonene oxide	0.94
trans-limonene oxide	1.03
(Z) myroxide	0.08
caryophyllene oxide	0.06

Esters 0.64%

geranyl acetate	0.22
linalyl acetate	0.18
bornyl acetate	0.12
octyl acetate	0.06
decyl acetate	0.03
methyl N-methyl anthranilate	0.02
neryl acetate	0.01

Sesquiterpenes 0.05%

δ elemene	0.03
β caryophyllene	0.02

Sesquiterpenols 0.07%

(E) Nerolidol	0.06
α bisabolol oxide A	0.01

Ketones 0.37%

carvone	0.30
isopiperitenone	0.04
cryptone	0.01
trans-dihydrocarvone	0.01
nootkatone	0.01

Other 0.14%

perillyl alcohol	0.05
1-octanol	0.02
1-nonanol	0.02
octanoic acid	0.02
nonane	0.01
tricosane	0.01
pentacosane	0.01

Raw Material: rind, steam distilled

Date of Analysis: 2/24/2021

Client



Source



Orange, Bitter (*Citrus aurantium amara*)
EG-59158

Sample

Orange, Bitter (*Citrus aurantium amara*)

Batch #:..... EG-59158

Type:..... Essential Oil

CAS Number:... 8016-38-4

Nature's Gift

Client



Website



Primary

86.53%

Limonene

2.33%

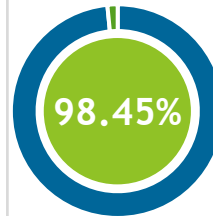
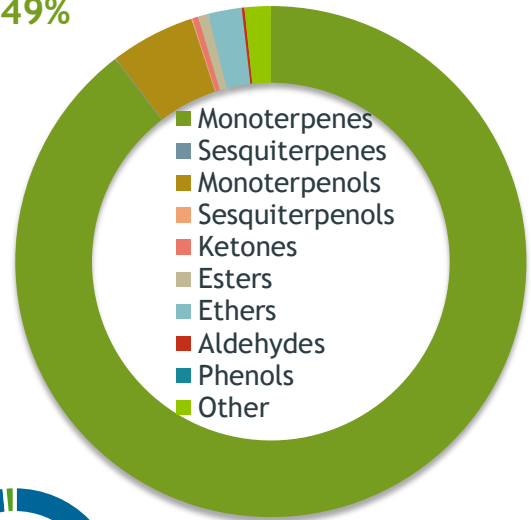
alpha-Terpineol

1.74%

Myrcene

Monoterpenes

89.49%



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 Orange, Bitter (*Citrus aurantium amara*)

Internal Number: | EVS-4246



Essential Validation Services

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

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

Alan Christen

Monoterpenes	89.49%	89.49%
Sesquiterpenes		0.05%
Monoterpenols		5.35%
Sesquiterpenols		0.07%
Ketones		0.37%
Esters		0.64%
Ethers		2.13%
Aldehydes		0.17%
Phenols		0.00%
Other		1.65%

- Essential Oil testing is performed by using qualitative GC-MS. Method: SOP.T.01 Client Method
- This report may not be published without the consent of Essential Validation Services.
- Chromatograph image may be requested
- This report is valid for 1 year from the analyzed date

Client



Source

Orange, Bitter (*Citrus aurantium amara*)

EG-59158

Total Percentage		98.45%		
Number	RT	Area %	Compound Name	Chemical Family
1	7.11	0.01%	Nonane	Alkane
2	8.28	0.68%	alpha-Pinene	Monoterpene
3	8.88	0.01%	Camphene	Monoterpene
4	9.85	0.06%	Sabinene	Monoterpene
5	10.01	0.20%	beta-Pinene	Monoterpene
6	10.60	1.74%	Myrcene	Monoterpene
7	10.74	0.01%	2-Carene	Monoterpene
8	11.19	0.07%	Octanal	Aliphatic Aldehyde
9	11.65	0.06%	1,4-Cineole	Monoterpene Ether
10	12.10	0.16%	para-Cymene	Monoterpene
11	12.48	86.53%	Limonene	Monoterpene
12	12.66	0.01%	(Z)-beta-Ocimene	Monoterpene
13	13.11	0.04%	(E)-beta-Ocimene	Monoterpene
14	14.13	0.12%	cis-Linalool oxide (5) (furanoid)	Monoterpenol
15	14.25	0.02%	1-Octanol	Aliphatic Alcohol
16	14.80	0.02%	Terpinolene	Monoterpene
17	14.86	0.05%	trans-Linalool oxide (5) (furanoid)	Monoterpenol
18	15.01	0.03%	para-Cymenene	Monoterpene
19	15.10	0.03%	6,7-Epoxyterpinene	Monoterpene Ether
20	15.33	0.01%	alpha-Pinene oxide	Monoterpene Ether
21	15.53	0.27%	Linalool	Monoterpenol
22	15.74	0.01%	Nonanal	Aliphatic Aldehyde
23	16.31	0.01%	Fenchol	Monoterpenol
24	16.46	0.39%	trans-para-Mentha-2,8-dien-1-ol	Monoterpenol
25	16.94	0.94%	cis-Limonene oxide	Monoterpene Ether
26	17.15	1.03%	trans-Limonene oxide	Monoterpene Ether
27	17.43	0.08%	12.82 Myroxide<Z->	0.00
28	17.54	0.01%	cis-Verbenol	Monoterpenol
29	17.73	0.36%	beta-Terpineol	Monoterpenol
30	18.56	0.10%	trans-beta-Terpineol	Monoterpenol
31	18.89	0.02%	1-Nonanol	Fatty alcohol
32	18.96	0.02%	Octanoic acid	Aliphatic Acid
33	19.14	0.10%	Terpinen-4-ol	Monoterpenol
34	19.38	0.01%	Cryptone	Monoterpene Ketone
35	19.48	0.14%	para-Cymen-8-ol	Monoterpenol

Client



Source

Orange, Bitter (*Citrus aurantium amara*)

EG-59158

Number	RT	Area %	Compound Name	Chemical Family
36	19.852	2.33%	alpha-Terpineol	Monoterpenol
37	20.06	0.37%	trans-Piperitol	Monoterpenol
38	20.20	0.01%	trans-Dihydrocarvone	Monoterpene Ketone
39	20.42	0.04%	Decanal	Aliphatic Aldehyde
40	20.67	0.06%	Octyl acetate	Aliphatic Ester
41	20.95	0.52%	trans-Carveol	Monoterpenol
42	21.40	0.02%	cis-para-Mentha-1(7),8-dien-2-ol	Monoterpenol
43	21.54	0.41%	cis-Carveol	Monoterpenol
44	22.01	0.30%	Carvone	Monoterpene Ketone
45	22.41	0.18%	Linalyl acetate	Monoterpene Ester
46	23.12	0.04%	Isopiperitenone	Monoterpene Ketone
47	23.39	0.04%	Perilla aldehyde	Monoterpene Aldehyde
48	24.17	0.05%	Perillyl alcohol	Monoterpenol
49	24.90	0.12%	Bornyl acetate	Monoterpene Ester
50	25.46	0.10%	Ascaridole	Monoterpenol
51	26.10	0.03%	delta-Elemene	Sesquiterpene
52	26.82	0.01%	Neryl acetate	Monoterpene Ester
53	28.04	0.22%	Geranyl acetate	Monoterpene Ester
54	29.04	0.02%	Methyl N-methyl anthranilate	Phenolic Ester
55	29.39	0.03%	Decyl acetate	Monoterpene Ester
56	29.60	0.02%	beta-Caryophyllene	Sesquiterpene
57	31.69	0.01%	(E)-2-Dodecenal	Sesquiterpene Aldehyde
58	35.43	0.06%	(E)-Nerolidol	Sesquiterpenol
59	36.04	0.06%	Caryophyllene oxide	Sesquiterpene Ether
60	42.19	0.01%	alpha-Bisabolol oxide A	Sesquiterpenol
61	44.00	0.01%	Nootkatone	Sesquiterpene Ketone
62	58.52	0.01%	Tricosane	Alkane
63	60.23	0.01%	Pentacosane	Alkane
64	61.33	0.01%	Heptacosane	Alkane

ESSENTIAL VALIDATION SERVICES | 74 / SW 2ND AVE GAINESVILLE, FLORIDA 32601 | 352-3501-5044