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Balancing Body, Mind and Spirit with Pure Essential Oils

Since 1995

www.naturesgift.com

Tagetes Tagetes minuta

Batch #IN-59151

India

Monoterpenes 35.92%

(Z) β ocimene	23.86
alloocimene	5.60
limonene	4.64
β thujone	0.52
sabinene	0.51
(E) β ocimene	0.21
α terpinene	0.16
terpinolene	0.11
camphene	0.07
myrcene	0.06
β pinene	0.05
α pinene	0.05
γ terpinene	0.05
para cymene	0.02
2-carene	0.01

Esters 0.34%

2-methylbutyl acetate	0.10
(Z)-3-hexenyl acetate	0.09
octyl acetate	0.06
prenyl acetate	0.03
hexyl acetate	0.02
bornyl acetate	0.02
isoamyl acetate	0.01
3 hexenyl butyrate	0.01

Ethers 0.18%

α pinene oxide	0.09
caryophyllene oxide	0.06
humulene epoxide II	0.03

Ketones 32.94%

dihydrotagetone	23.13
(Z) tagetone	7.77
(E) tagetone	0.57
isopiperitenone	0.45
(Z) ocimenone	0.43
camphenilone	0.27
(E) ocimenone	0.26
mesityl oxide	0.01
piperitenone	0.05

Monoterpenols 0.35%

linalool	0.17
borneol	0.06
ascaridole	0.06
terpinen-4-ol	0.05
α terpineol	0.01

Aldehydes 0.16%

octanal	0.08
decanal	0.08

Sesquiterpenes 4.27%

β caryophyllene	1.13
bicyclogermacrene	1.06
δ elemene	0.58
α humulene	0.56
germacrene D	0.48
modheph-2-ene	0.27
cyperene	0.07
viridiflorene	0.04
α copaene	0.02
aromadendrene	0.02
α isocomene	0.01
β copaene	0.01
γ gurjunene	0.01
γ muurolene	0.01

Sesquiterpenes 0.43%

spathulenol	0.21
cubebol	0.08
globulol	0.07
viridiflorol	0.03
(E) nerolidol	0.02
isospathulenol	0.02

Other 14.47%

unknown	14.13
2-methylbutyric acid	0.21
1-octanol	0.10
dihydro edulan II	0.02
isovaleric acid	0.01

Raw Material: resin

Botanical Name: Boswellia serrata

Production Method: Steam distillation

Date of Analysis: 2/15/2021

Client



Source



Tagetes (Tagetes minuta)
IN-59151

Sample

Tagetes (Tagetes minuta)
Batch #:..... | IN-59151
Type:..... | Essential Oil
CAS Number:... | 8016-84-0
Nature's Gift

Client



Website

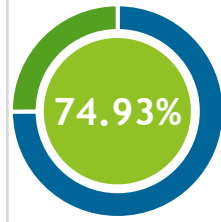
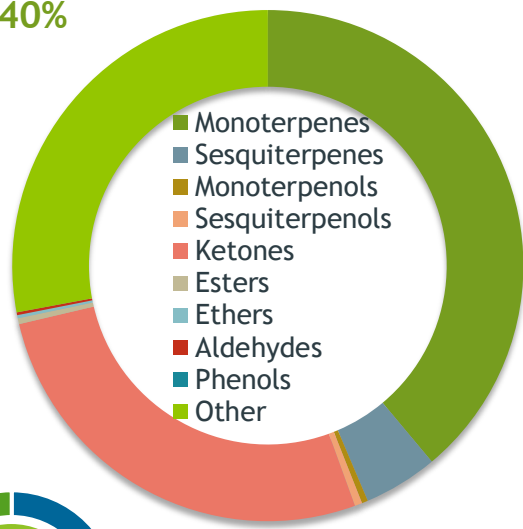


Primary

23.86% | (Z)-beta-Ocimene
23.13 | Dihydrotagetone
7.77% | 13.54 Tagetone<Z->

Monoterpenes

35.40%



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 Tagetes (Tagetes minuta)

Internal Number: | EVS-4211



Essential Validation Services

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

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

Alan Christen

Monoterpenes	35.40%	35.40%
Sesquiterpenes	4.27%	4.27%
Monoterpenols	0.35%	0.35%
Sesquiterpenols	0.43%	0.43%
Ketones	24.43%	24.43%
Esters	0.34%	0.34%
Ethers	0.18%	0.18%
Aldehydes	0.16%	0.16%
Phenols	0.00%	0.00%
Other	25.41%	25.41%

ESSENTIAL VALIDATION SERVICES | 747 SW 2ND AVE GAINESVILLE, FLORIDA 32601 | 317-361-5044

- Essential Oil testing is performed by using qualitative GC-MS. Method: SOP.T.01 Client Method
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- Chromatograph image may be requested
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Client



Source



Tagetes (Tagetes minuta)

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Total Percentage		74.93%		
Number	RT	Area %	Compound Name	Chemical Family
1	4.23	0.01%	Mesityl oxide	Aliphatic Ketone
2	5.24	0.01%	Isovaleric acid	Aliphatic Acid
3	5.52	0.21%	2-Methylbutyric acid	Aliphatic Acid
4	6.35	0.01%	Isoamyl acetate	Aliphatic Ester
5	6.41	0.10%	2-Methylbutyl acetate	Aliphatic Ester
6	7.87	0.03%	Prenyl acetate	Aliphatic Ester
7	8.27	0.05%	alpha-Pinene	Monoterpene
8	8.88	0.07%	Camphene	Monoterpene
9	9.83	0.51%	Sabinene	Monoterpene
10	9.99	0.05%	beta-Pinene	Monoterpene
11	10.58	0.06%	Myrcene	Monoterpene
12	11.17	0.08%	Octanal	Aliphatic Aldehyde
13	11.26	0.09%	(Z)-3-Hexenyl acetate	Aliphatic Ester
14	11.59	0.02%	Hexyl acetate	Aliphatic Ester
15	11.71	0.01%	2-Carene	Monoterpene
16	12.04	0.02%	para-Cymene	Monoterpene
17	12.13	0.16%	alpha-Terpinene	Monoterpene
18	12.25	4.64%	Limonene	Monoterpene
19	12.68	23.86%	(Z)-beta-Ocimene	Monoterpene
20	13.09	0.21%	(E)-beta-Ocimene	Monoterpene
21	13.37	23.13%	Dihydrotagetone	Monoterpene Ketone
22	13.58	0.05%	gamma-Terpinene	Monoterpene
23	14.23	0.10%	1-Octanol	Aliphatic Alcohol
24	14.34	0.27%	Camphenilone	Monoterpene Ketone
25	14.81	0.11%	Terpinolene	Monoterpene
26	15.03	0.52%	beta-Thujone	Monoterpene Ketone
27	15.31	0.09%	alpha-Pinene oxide	Monoterpene Ether
28	15.52	0.17%	Linalool	Monoterpenol
29	16.82	5.60%	Alloocimene	Monoterpene
30	17.58	0.57%	13.19 Tagetone<E->	0.00
31	17.91	7.77%	13.54 Tagetone<Z->	0.00
32	18.72	0.06%	Borneol	Monoterpenol
33	19.13	0.05%	Terpinen-4-ol	Monoterpenol
34	19.41	0.01%	(Z)-3-Hexenyl butyrate	Aliphatic Ester
35	19.82	0.01%	alpha-Terpineol	Monoterpenol

Client



Source



Tagetes (Tagetes minuta)
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Number	RT	Area %	Compound Name	Chemical Family
36	20.405	0.08%	Decanal	Monoterpenol
37	20.65	0.06%	Octyl acetate	Aliphatic Ester
38	21.48	0.43%	16.94 Ocimenone<Z->	0.00
39	21.83	0.26%	17.32 Ocimenone<E->	0.00
40	23.10	0.45%	Isopiperitenone	Monoterpene Ketone
41	23.83	0.02%	Bornyl acetate	Monoterpene Ester
42	24.18	0.02%	Edulan II, dihydro-	Edulan
43	25.50	0.06%	Ascaridole	Monoterpenol
44	25.94	0.58%	delta-Elemene	Sesquiterpene
45	26.12	0.05%	Piperitenone	Sesquiterpene Ketone
46	27.78	0.02%	alpha-Copaene	Sesquiterpene
47	27.98	0.27%	Modheph-2-ene	Sesquiterpene
48	28.26	0.01%	alpha-Isocomene	Sesquiterpene
49	28.87	0.07%	Cyperene	Sesquiterpene
50	29.58	1.13%	beta-Caryophyllene	Sesquiterpene
51	30.03	0.01%	beta-Copaene	Sesquiterpene
52	30.36	0.02%	Aromadendrene	Sesquiterpene
53	31.06	0.56%	alpha-Humulene	Sesquiterpene
54	31.77	0.01%	gamma-Gurjunene	Sesquiterpene
55	31.91	0.01%	gamma-Murolene	Sesquiterpene
56	32.12	0.48%	Germacrene D	Sesquiterpene
57	32.55	0.04%	Viridiflorene	Sesquiterpene
58	32.71	1.06%	Bicyclogermacrene	Sesquiterpene
59	33.68	0.08%	Cubebol	Sesquiterpenol
60	35.42	0.02%	(E)-Nerolidol	Sesquiterpenol
61	35.87	0.21%	Spathulenol	Sesquiterpenol
62	36.03	0.06%	Caryophyllene oxide	Sesquiterpene Ether
63	36.21	0.07%	Globulol	Sesquiterpenol
64	36.52	0.03%	Viridiflorol	Sesquiterpenol
65	37.09	0.03%	Humulene epoxide II	Sesquiterpene Ether
66	38.03	0.02%	Isospathulenol	Sesquiterpenol
67	50.74	1.10%	UK Compound	
68	50.84	1.09%	UK Compound	
69	51.99	0.44%	UK Compound	
70	52.08	0.50%	UK Compound	
71	52.58	1.19%	UK Compound	

Client



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Tagetes (Tagetes minuta)
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72	53.67	2.69%	UK Compound
73	55.23	1.56%	UK Compound
74	56.33	5.56%	UK Compound

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