

## Cape Chamomile Eriocephalus punctulatus

Batch No. ZA-59271

South Africa

<b>Monoterpenes</b>	<b>3.97%</b>	<b>Esters</b>	<b>72.81%</b>	<b>Phenols</b>	<b>0.06%</b>
para cymene	1.55	2-methylbutyl isobutyrate	25.73	methyl eugenol	0.04
α pinene	0.71	isobutyl isobutyrate	14.64	eugenol	0.02
camphene	0.71	2-methylbutyl 2-methylbutyrate	5.09		
γ terpinene	0.46	octanol acetate	4.48		
limonene	0.17	isoamyl isobutyrate	4.04	<b>Sesquiterpenes</b>	<b>0.86%</b>
β pinene	0.17	isoamyl tiglate	3.01	α copaene	0.49
terpinolene	0.10	isobutyl angelate	2.05	β caryophyllene	0.11
tricyclene	0.05	isobutyl-2-methylbutyrate	2.01	longicyclene	0.07
para-cymenene	0.02	linalyl acetate	1.79	β selinene	0.05
α thujene	0.01	2-methylbutyl isovalerate	1.65	γ murolene	0.05
(Z) β ocimene	0.01	isopentyl 2-methylbutyrate	1.40	γ gurjunene	0.05
(E) β ocimene	0.01	isobutyl tiglate	1.18	delta-elemene	0.02
		artedouglasia oxide C	0.99	α murolene	0.02
		2-methylbutyl acetate	0.73		
<b>Monoterpenols</b>	<b>5.07%</b>	artedouglasia oxide B	0.65		
borneol	2.43	isoamyl propionate	0.50	<b>Sesquiterpenols</b>	<b>0.53%</b>
terpinen-4-ol	1.40	isoamyl methacrylate	0.40	1,10-di-epi-Cubenol	0.12
(Z) dehydroxy linalool oxide	0.49	ethyl hexyl acetate	0.38	τ cadinol	0.1
(Z) para-menth-2-en-1-ol	0.21	artedouglasia oxide A	0.37	β copaen-4-α-ol	0.09
(E) para-menth-2-en-1-ol	0.14	isobutyl methacrylate	0.34	α bisabolol	0.08
(Z) piperitol	0.13	isoamyl angelate	0.32	allohimachalol	0.05
isopulegol	0.11	bornyl acetate	0.30	viridiflorol	0.04
ascaridole	0.06	heptyl acetate	0.24	τ muurolol	0.03
(E) para-menth-2,8-dien-1-ol	0.03	isoamyl isovalerate	0.18	globulol	0.02
(Z)-para-menth-2,8-dien-1-ol	0.03	allo-aromadendrene epoxide	0.11		
(Z) para-mentha-1(7),8-dien-2-ol	0.03	geranyl acetate	0.07	<b>Aldehydes</b>	<b>0.08%</b>
(E) ascaridol glycol	0.01	isoamyl acetate	0.06	myrtenal	0.05
		neryl acetate	0.03	α campholene aldehyde	0.03
		propyl isobutyrate	0.02		
		3-methylamyl isobutyrate	0.02		
		bornyl formate	0.02		
		methallyl angelate	0.01		
<b>Ethers</b>	<b>0.93%</b>	<b>Ketones</b>	<b>2.95%</b>		
trans-dehydroxy linalool oxid	0.41	camphor	2.46		
1,8 cineole	0.30	Laciniata furanone E	0.18		
caryophellene oxide	0.22	Laciniata furanone G	0.11		
		pinocarvone	0.09		
		1-octen-3-one	0.07		

Client



Source



Cape Chamomile (*Eriocephalus punctulatus*)  
ZA-59271

Sample

Cape Chamomile (*Eriocephalus punctulatus*)

Batch #:..... ZA-59271  
Type:..... Essential Oil  
CAS Number:... 68916-49-4

Nature's Gift

Client



Website

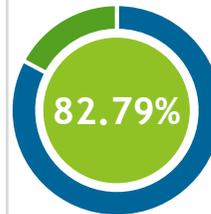
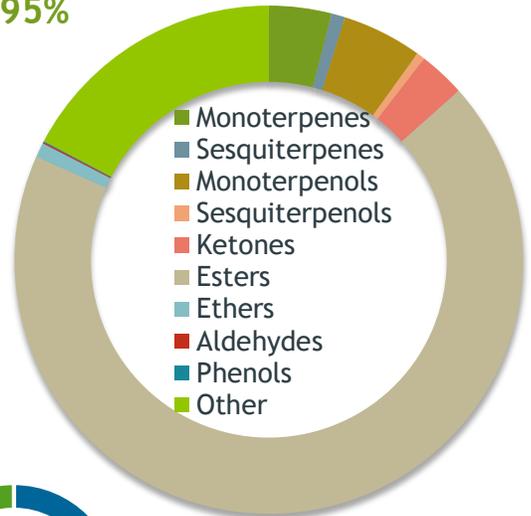


Primary

**25.73%** | 2-Methylbutyl  
**14.64%** | Isobutyl isobutyrate  
**5.09%** | 2-Methylbutyl 2-

Esters

67.95%



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 Cape Chamomile (*Eriocephalus punctulatus*)

Internal Number: | EVS-5231



Essential Validation Services

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Gainesville, FL 32601

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

*Alan Christen*

Monoterpenes	3.97%
Sesquiterpenes	0.86%
Monoterpenols	5.07%
Sesquiterpenols	0.53%
Ketones	2.95%
Esters	67.95%
Ethers	0.93%
Aldehydes	0.09%
Phenols	0.06%
Other	17.21%

Client



Source

Cape Chamomile (*Eriocephalus punctulatus*)

ZA-59271

Total Percentage		82.79%		
Number	RT	Area %	Compound Name	Chemical Family
1	4.10	0.01%	Hexanal	Aliphatic Aldehyde
2	5.48	0.02%	Propyl isobutyrate	Aliphatic Ester
3	6.09	0.06%	Isoamyl acetate	Aliphatic Ester
4	6.15	0.73%	2-Methylbutyl acetate	Aliphatic Ester
5	7.38	14.64%	Isobutyl isobutyrate	Aliphatic Ester
6	7.57	0.05%	Tricyclene	Monoterpene
7	7.73	0.01%	alpha-Thujene	Monoterpene
8	7.97	0.71%	alpha-Pinene	Monoterpene
9	8.23	0.34%	Isobutyl methacrylate	Aliphatic Ester
10	8.57	0.71%	Camphene	Monoterpene
11	9.45	0.07%	1-Octen-3-one	Aliphatic Ketone
12	9.53	0.50%	Isoamyl propionate	Aliphatic Ester
13	9.67	0.17%	beta-Pinene	Monoterpene
14	10.26	0.41%	trans-Dehydroxy linalool oxide	Monoterpene Ether
15	10.82	2.01%	Isobutyl 2-methylbutyrate	Aliphatic Ester
16	10.90	0.49%	cis-Dehydroxylinalool oxide	Monoterpenol
17	11.28	4.04%	Isoamyl isobutyrate	Aliphatic Ester
18	11.50	25.73%	2-Methylbutyl isobutyrate	Aliphatic Ester
19	11.74	1.55%	para-Cymene	Monoterpene
20	11.92	0.17%	Limonene	Monoterpene
21	12.01	0.30%	1,8-Cineole	Monoterpene Ether
22	12.29	0.01%	(Z)-beta-Ocimene	Monoterpene
23	12.44	0.24%	9.19 Heptyl acetate <2->	Monoterpene Ester
24	12.52	0.40%	Isoamyl methacrylate	Aliphatic Ester
25	12.73	0.01%	(E)-beta-Ocimene	Monoterpene
26	12.91	2.05%	Isobutyl angelate	Aliphatic Ester
27	13.21	0.46%	gamma-Terpinene	Monoterpene
28	13.53	0.01%	Methallyl angelate	Aliphatic Ester
29	14.22	1.18%	Isobutyl tiglate	Aliphatic Ester
30	14.42	0.10%	Terpinolene	Monoterpene
31	14.63	0.02%	para-Cymenene	Monoterpene
32	15.17	1.40%	Isopentyl 2-methylbutyrate	Aliphatic Ester
33	15.33	5.09%	2-Methylbutyl 2-methylbutyrate	Aliphatic Ester
34	15.47	0.18%	Isoamyl isovalerate	Aliphatic Ester
35	15.57	1.65%	2-Methyl Butyl Isovalerate	Monoterpene Ester

Client



Source

Cape Chamomile (*Eriocephalus punctulatus*)

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Number	RT	Area %	Compound Name	Chemical Family
36	15.725	0.02%	3-Methylamyl isobutyrate	Monoterpene Ester
37	16.08	0.03%	trans-para-Mentha-2,8-dien-1-ol	Monoterpenol
38	16.18	0.21%	cis-para-Menth-2-en-1-ol	Monoterpenol
39	16.27	0.03%	alpha-Campholene aldehyde	Monoterpene Aldehyde
40	16.75	0.03%	cis-para-Mentha-2,8-dien-1-ol	Monoterpenol
41	16.88	0.38%	13.59 Ethyl hexyl acetate<2->	0.00
42	17.02	0.14%	trans-para-Menth-2-en-1-ol	Monoterpenol
43	17.13	2.46%	Camphor	Monoterpene Ketone
44	17.35	0.32%	Isoamyl angelate	Aliphatic Ester
45	17.54	3.01%	Isoamyl tiglate	Aliphatic Ester
46	17.75	0.11%	Isopulegol	Monoterpenol
47	17.85	0.09%	Pinocarvone	Monoterpene Ketone
48	18.35	2.43%	Borneol	Monoterpenol
49	18.47	0.02%	Pinocamphone	Monoterpene Ketone
50	18.75	1.40%	Terpinen-4-ol	Monoterpenol
51	19.37	0.05%	Myrtenal	Monoterpene Aldehyde
52	19.74	4.48%	Octanol acetate	
53	20.12	0.13%	cis-Piperitol	Monoterpenol
54	20.88	0.02%	Bornyl formate	Monoterpene Ester
55	21.00	0.03%	cis-para-Mentha-1(7),8-dien-2-ol	Monoterpenol
56	21.61	0.02%	Carvone	Monoterpene Ketone
57	22.03	1.79%	Linalyl acetate	Monoterpene Ester
58	22.99	0.01%	trans-Ascaridol glycol	Monoterpenol
59	23.43	0.30%	Bornyl acetate	Monoterpene Ester
60	24.30	0.06%	Ascaridole	Monoterpenol
61	25.52	0.02%	delta-Elemene	Sesquiterpene
62	26.40	0.02%	Eugenol	Phenylpropanoid
63	26.79	0.03%	Neryl acetate	Monoterpene Ester
64	27.21	0.07%	Longicyclene	Sesquiterpene
65	27.37	0.49%	alpha-Copaene	Sesquiterpene
66	27.64	0.07%	Geranyl acetate	Monoterpene Ester
67	28.53	0.04%	Methyl eugenol	Phenylpropanoid
68	29.16	0.11%	beta-Caryophyllene	Sesquiterpene
69	31.49	0.05%	gamma-Muurolene	Sesquiterpene
70	31.99	0.05%	beta-Selinene	Sesquiterpene
71	32.29	0.05%	gamma-Gurjunene	Sesquiterpene

ESSENTIAL VALIDATION SERVICES | 74 / SW 2<sup>ND</sup> AVE GAINESVILLE, FLORIDA 32601 | 352-301-5044

- 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

