

## Vetiver Vetiveria zizanioides

Madagascar

Batch #MA-59157

### Sesquiterpenes 24.72%

β Vetivenene	3.47
(Z) β guaiene	3.15
γ Vetivenene	2.42
β Vetivenene isomer I	1.81
α Amorphene	1.70
α Vetispirine	1.66
α himachalene	1.33
β Vetivenene isomer II	1.31
β Gurjunene	1.29
prezizaene	1.02
β cadinene	0.69
khusimene	0.64
eremophilene	0.62
α guaiene	0.49
α Calacorene	0.48
γ muurrolene	0.48
nootkatene	0.41
γ cadinene	0.22
sesquithujene	0.20
bicyclogermacrene	0.18
2-norPrezizaene	0.17
β cedrene	0.17
α cedrene	0.15
12-norisoziza-5-ene	0.14
Acora-3,7(14)-diene	0.14
cyperene	0.13
zonarene	0.11
α Ylangene	0.05
α gurjunene	0.05
(Z) calacorene	0.03
isolekene	0.01

### Phenols 0%

4-vinylguaiacol	0.04
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### Sesquiterpenols 24.31%

khusimol	7.13
α bisbolol	2.70
β eudesmol	2.08
γ eudesmol	2.03
vetiselinol	2.01
α-muurolol	1.66
junenol	1.47
10 epi γ eudesmol	1.36
isovalencenol	1.13
Cyclocopacampha-12-ol (epimer A)	1.08
Cyclocopacampha-12-ol (epimer B)	0.77
cedr-8-en-13-ol	0.36
α 1,7 diepi-cedrenal	0.33
Elemol	0.20

### Aldehydes 1.05%

(E)-isovalencenal	0.7
zizanal	0.35

### Ketones 11.62%

β Vetivone	3.71
α Vetivone	5.47
khusimone	1.19
oplopanone	0.49
2-epi α funebrene	0.18
Nootkatone	0.58

### Other 0.06%

zizanoicacid	2.11
furfural	0.06

Raw Material: roots

Production Method: hydro steam distillation

Date of Analysis: 2/24/2021

Client



Source



Vetiver (*Vetiveria zizanioides*)  
MA-59157

Sample

Vetiver (*Vetiveria zizanioides*)  
Batch #:..... MA-59157  
Type:..... Essential Oil  
CAS Number:... 84238-29-9  
**Nature's Gift**

Client



Website

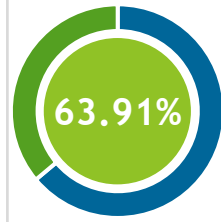
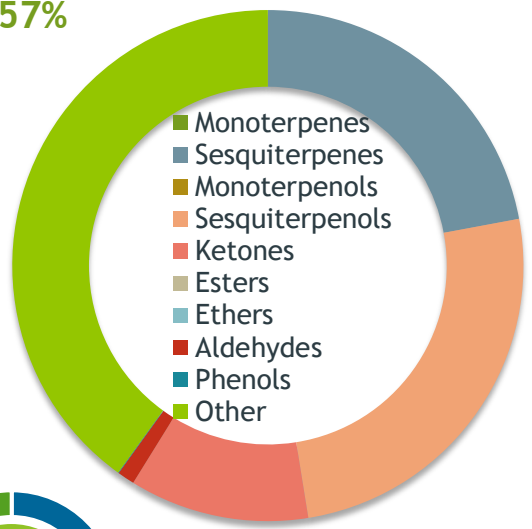


Primary

**7.13%** | Khusimol  
**5.47%** | alpha-Vetivone  
**3.71%** | beta-Vetivone

Other

38.57%



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 Vetiver (*Vetiveria zizanioides*)

Internal Number: | EVS-4248



**Essential Validation Services**

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

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

*Alan Chastain*

Monoterpenes	0.00%
Sesquiterpenes	21.26%
Monoterpenols	0.00%
Sesquiterpenols	24.47%
Ketones	10.95%
Esters	0.00%
Ethers	0.00%
Aldehydes	1.05%
Phenols	0.04%
Other	38.57%

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- 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

Vetiver (*Vetiveria zizanioides*)

MA-59157

Total Percentage		63.91%		
Number	RT	Area %	Compound Name	Chemical Family
1	5.06	0.06%	Furfural	Furan
2	24.98	0.04%	4-Vinylguaiacol	Simple Phenolic
3	27.15	0.14%	12-Norisoziza-5-ene	Norsesquiterpene
4	27.53	0.05%	alpha-Ylangene	Sesquiterpene
5	27.73	0.17%	2-Norprezizene	Norsesquiterpene
6	27.83	0.01%	Isoledene	Sesquiterpene
7	28.03	0.18%	23.75 Funebrene<2-epi-alpha->	0.00
8	28.71	0.20%	Sesquithujene	Sesquiterpene
9	28.90	0.13%	Cyperene	Sesquiterpene
10	29.27	0.14%	Acora-3,7(14)-diene	Sesquiterpene
11	29.42	0.15%	alpha-Cedrene	Sesquiterpene
12	29.59	0.05%	alpha-Gurjunene	Sesquiterpene
13	29.77	0.17%	beta-Cedrene	Sesquiterpene
14	30.59	1.29%	beta-Gurjunene	Sesquiterpene
15	30.87	1.02%	Prezizaene	Sesquiterpene
16	31.06	0.64%	Khusimene	Sesquiterpene
17	31.21	0.49%	alpha-Guaiene	Sesquiterpene
18	31.50	1.33%	alpha-Himachalene	Sesquiterpene
19	32.12	1.70%	alpha-Amorphene	Sesquiterpene
20	32.29	1.66%	alpha-Vetispirene	Sesquiterpene
21	32.46	3.15%	28.51 Guaiene<cis-beta->	0.00
22	32.65	0.48%	gamma-Murolene	Sesquiterpene
23	33.09	0.69%	beta-Cadinene	Sesquiterpene
24	33.45	0.41%	Nootkatene	Sesquiterpene
25	33.54	0.18%	Bicyclogermacrene	Sesquiterpene
26	33.68	0.62%	Eremophilene	Sesquiterpene
27	33.80	0.03%	cis-Calamenene	Sesquiterpene
28	33.86	0.11%	Zonarene	Sesquiterpene
29	34.05	2.42%	gamma-Vetivenene	Sesquiterpene
30	34.24	0.22%	gamma-Cadinene	Sesquiterpene
31	34.55	0.48%	alpha-Calacorene	Sesquiterpene
32	34.86	0.20%	Elemol	Sesquiterpenol
33	35.01	3.47%	beta-Vetivenene	Sesquiterpene
34	35.34	1.81%	beta-Vetivenene isomer I	Sesquiterpene
35	36.25	1.31%	beta-Vetivenene isomer II	Sesquiterpene

Client



Source



Vetiver (*Vetiveria zizanioides*)  
MA-59157

Number	RT	Area %	Compound Name	Chemical Family
36	36.886	1.19%	Khusimone	Sesquiterpene
37	37.36	1.36%	10-epi-gamma-Eudesmol	Sesquiterpenol
38	37.60	1.47%	Junenol	Sesquiterpenol
39	37.98	2.03%	gamma-Eudesmol	Sesquiterpenol
40	38.35	0.33%	34.42 Cedrenal<1,7-diepi-alpha->	0.00
41	39.08	1.66%	alpha-Muurolol	Sesquiterpenol
42	39.31	2.08%	beta-Eudesmol	Sesquiterpenol
43	39.64	1.08%	Cyclocopacampha-12-ol (epimer A)	Sesquiterpenol
44	39.82	0.77%	Cyclocopacampha-12-ol (epimer B)	Sesquiterpenol
45	40.00	2.70%	alpha-Bisabolol	Sesquiterpenol
46	40.16	0.36%	Cedr-8-en-13-ol	Sesquiterpenol
47	41.10	0.35%	Zizanal	Sesquiterpene Aldehyde
48	41.35	2.01%	Vetiselinol	Sesquiterpenol
49	41.71	0.49%	Oplopanone	Sesquiterpenol
50	42.14	7.13%	Khusimol	Sesquiterpenol
51	43.52	1.13%	Isovalencenol	Sesquiterpenol
52	43.79	0.70%	(E)-Isovalencenal	Sesquiterpene Aldehyde
53	44.04	0.58%	Nootkatone	Sesquiterpene Ketone
54	44.42	3.71%	beta-Vetivone	Sesquiterpene Ketone
55	44.69	2.11%	Zizanoicacid	Sesquiterpene Acid
56	45.28	5.47%	alpha-Vetivone	Sesquiterpene Ketone

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