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Healing Body, Mind and Spirit with Pure Essential Oils

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## Valerian

### Valeriana officinalis

Nepal

Batch #NP-58954

#### Sesquiterpenes 45.55%

$\alpha$ guaiene	12.73
$\delta$ guaiene	7.63
$\gamma$ patchoulene	6.93
$\alpha$ patchoulene	5.96
$\alpha$ Asantalene	2.67
aromadendrene	1.93
viridiflorene	1.06
kessane	0.99
$\alpha$ Vgurjunene	0.89
$\beta$ patchoulene	0.81
$\alpha$ muurolene	0.69
$\alpha$ humulene	0.65
epi- $\alpha$ -selinene	0.57
allo-aromadendrene	0.47
$\beta$ elemene	0.43
$\beta$ Gurjunene	0.25
$\delta$ selinene	0.25
$\beta$ selinene	0.18
$\delta$ cadinene	0.18
$\gamma$ cadinene	0.12
$\delta$ patchoulene	0.08
isocaryophyllene	0.05
$\beta$ calacorene	0.03

#### Sesquiterpenols 29.43%

maaliol	22.81
patchouli alcohol	3.77
ledol	1.29
valerianol	0.55
spathulenol	0.42
viridiflorol	0.35
$\alpha$ -bisabolol	0.24

#### Monoterpenes 2.73%

$\alpha$ pinene	0.45
$\beta$ pinene	1.17
camphene	1.04
limonene	0.05
para-cymene	0.02

#### Monoterpenols 0.15%

borneol	0.15
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#### Aldehydes 0.11%

valerenal	0.11
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#### Esters 3.25%

3-methylvaleric acid	1.36
bornyl acetate	1.42
myrtenyl isovalerate	0.31
ethyl isovalerate	0.16

#### Ethers 0.01%

methyl thymol	0.01
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#### Ketones 0.05%

aristolone	0.05
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#### Other 16.73%

isovaleric acid	12.15
5-methylfurfural	3.23
Methyl isovalerate	0.59
cembrene A	0.2
furfural	0.56

**Raw Material:** Roots

**Production Method:** Steam distillation

**Date of Analysis:** 7/16/2019

Client



Source



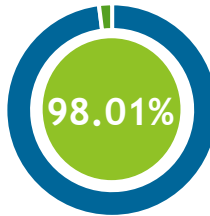
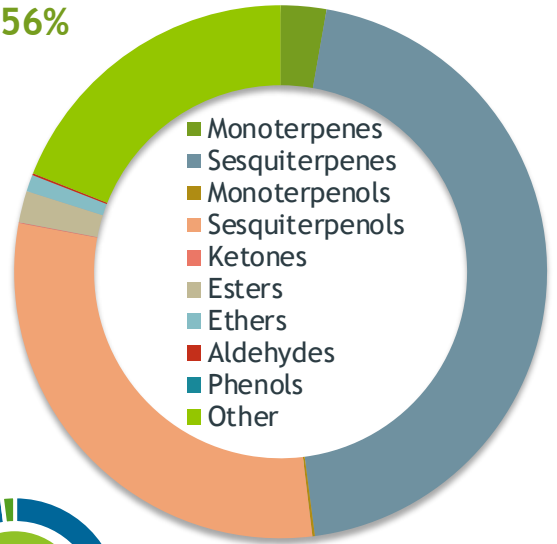
Valerian (*Valeriana officinalis*)  
NP-58954

Sample

Valerian (*Valeriana officinalis*)  
Batch #:..... NP-58954  
Type:..... Essential Oil  
CAS Number:... 8008-88-6  
Nature's Gift

Sesquiterpenes

44.56%



Percentage Identified

Client



Website



Primary

**22.81%** | Maaliol  
**12.73%** | alpha-Guaiene  
**12.15%** | Isovaleric acid

Result



Conclusion

No adulterants, Diluents, or contaminants were detected via this method. This oil meets the expected profile for genuine Essential Oil of Valerian (*Valeriana officinalis*)

Internal Number: | EVS-3095



Essential Validation Services

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Gainesville, FL 32601

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

Monoterpenes	2.73%
Sesquiterpenes	44.56%
Monoterpenols	0.15%
Sesquiterpenols	29.43%
Ketones	0.05%
Esters	1.89%
Ethers	1.00%
Aldehydes	0.11%
Phenols	0.00%
Other	18.72%

Client



Source



Valerian (*Valeriana officinalis*)  
NP-58954

Total Percentage		98.01%			
Number	RT	Area %	Compound Name	RI	Chemical Family
1	6.38	0.59%	Methyl isovalerate	767.00	Aliphatic Acid
2	8.26	0.56%	Furfural	828.00	Furan
3	10.16	0.16%	Ethyl isovalerate	849.00	Aliphatic Ester
4	11.08	12.15%	Isovaleric acid	901.50	Aliphatic Acid
5	12.07	0.45%	alpha-Pinene	936.10	Monoterpene
6	12.66	1.04%	Camphene	950.30	Monoterpene
7	13.83	3.23%	5-Methylfurfural	960.50	Furan
8	13.99	1.36%	3-Methylvaleric acid	973.50	Aliphatic ester
9	14.10	1.17%	beta-Pinene	974.00	Monoterpene
10	15.82	0.02%	para-Cymene	1024.30	Monoterpene
11	15.99	0.05%	Limonene	1029.50	Monoterpene
12	21.49	0.15%	Borneol	1168.71	Monoterpenol
13	24.01	0.01%	Methyl thymol	1234.57	Monoterpene Ether
14	25.80	1.42%	Bornyl acetate	1288.29	Monoterpene Ester
15	29.16	0.81%	beta-Patchoulene	1380.00	Sesquiterpene
16	29.44	0.43%	beta-Elemene	1389.20	Sesquiterpene
17	29.98	0.05%	Isocaryophyllene	1403.65	Sesquiterpene
18	30.08	0.89%	alpha-Gurjunene	1412.00	Sesquiterpene
19	30.35	2.67%	alpha-Santalene	1426.50	Sesquiterpene
20	30.66	0.25%	beta-Gurjunene	1433.00	Sesquiterpene
21	30.84	12.73%	alpha-Guaiene	1438.67	Sesquiterpene
22	30.94	1.93%	Aromadendrene	1449.80	Sesquiterpene
23	31.15	6.93%	gamma-Patchoulene	1454.00	Sesquiterpene
24	31.56	5.96%	alpha-Patchoulene	1459.50	Sesquiterpene
25	31.70	0.65%	alpha-Humulene	1461.43	Sesquiterpene
26	32.13	0.47%	allo-Aromadendrene	1471.00	Sesquiterpene
27	32.26	0.08%	delta-Patchoulene	1476.30	Sesquiterpene
28	32.50	0.18%	beta-Selinene	1487.57	Sesquiterpene
29	32.58	0.25%	delta-Selinene	1494.00	Sesquiterpene
30	32.75	1.06%	Viridiflorene	1494.14	Sesquiterpene
31	32.86	0.69%	alpha-Muurolene	1500.25	Sesquiterpene
32	33.07	7.63%	delta-Guaiene	1511.50	Sesquiterpene
33	33.30	0.12%	gamma-Cadinene	1515.29	Sesquiterpene
34	33.47	0.57%	epi-alpha-Selinene	1520.33	Sesquiterpene
35	33.53	0.18%	delta-Cadinene	1524.14	Sesquiterpene

Client



Source



*Valerian (Valeriana officinalis)*  
 NP-58954

Number	RT	Area %	Compound Name	RI	Chemical Family
36	33.76	0.99%	Kessane	1528	Sesquiterpene
37	34.52	0.31%	Myrtenyl isovalerate	1543.00	Monoterpene Ester
38	34.79	0.03%	beta-Calacorene	1555.50	Sesquiterpene
39	35.00	22.81%	Maaliol	1565.00	Sesquiterpenol
40	35.22	0.42%	Spathulenol	1587.00	Sesquiterpenol
41	35.66	0.35%	Viridiflorol	1596.00	Sesquiterpenol
42	35.93	1.29%	Ledol	1623.00	Sesquiterpenol
43	37.39	0.55%	Valerianol	1655.30	Sesquiterpenol
44	37.64	3.77%	Patchouli alcohol	1660.50	Sesquiterpenol
45	39.09	0.24%	alpha-Bisabolol	1684.43	Sesquiterpenol
46	39.70	0.11%	Valerenal	1717.75	Sesquiterpene Aldehyde
47	41.29	0.05%	Aristolone	1764.00	Sesquiterpene Ketone
48	45.40	0.20%	Cembrene A	1931.00	Diterpene

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