



Roman Chamomile
Anthemis nobilis syn. Chamaemulum nobile

Batch No. IT-59267
Italy

| Monoterpenes | 2.24% |
|--------------|-------|
| α pinene | 1.40 |
| camphene | 0.50 |
| β pinene | 0.20 |
| limonene | 0.08 |
| para cymene | 0.06 |

| Monoterpenols | 8.46% |
|----------------------------------|-------|
| trans-pinocarveol | 7.57 |
| myrtenol | 0.59 |
| camphene hydrate | 0.24 |
| trans-myrtanol | 0.03 |
| (Z) carveol | 0.02 |
| (Z) linalool oxide (5)(furanoid) | 0.01 |

| Aldehydes | 0.16% |
|-----------------------|-------|
| α campholene aldehyde | 0.05 |
| benzaldehyde | 0.05 |
| hexanal | 0.02 |
| nonanal | 0.02 |
| (E,E) 2,4-decadienal | 0.01 |
| pentadecanal | 0.01 |

| Ethers | 0.11% |
|---------------------|-------|
| 1,8-cineole | 0.05 |
| α pinene oxide | 0.04 |
| caryophyllene oxide | 0.02 |

| Esters | 75.59% |
|--------------------------------------|--------|
| isobutyl angelate | 27.14 |
| isoamyl tiglate | 16.51 |
| methallyl angelate | 8.12 |
| isoamyl angelate | 5.82 |
| isobutyl isobutyrate | 3.81 |
| 2-methylbutyl isobutyrate | 3.05 |
| isobutyl methacrylate | 2.00 |
| isoamyl methacrylate | 1.46 |
| (E) 2-methyl-2-butenyl angelate | 1.34 |
| isobutyl 3-hydroxy-2-methylbutanoate | 1.16 |
| butyl angelate | 1.09 |
| isobutyl-2-methylbutyrate | 0.95 |
| isobutyl tiglate | 0.74 |
| 2-methylbutyl 2-methylbutyrate | 0.64 |
| isoamyl isobutyrate | 0.44 |
| 3-methylamyl angelate | 0.29 |
| prenyl acetate | 0.24 |
| (Z) 3-hexenyl angelate | 0.15 |
| 2-methylbutyl acetate | 0.15 |
| prenyl isobutyrate | 0.12 |
| isoamyl acetate | 0.08 |
| (Z) 3-hexenyl acetate | 0.06 |
| propyl 2-methylbutyrate | 0.06 |
| ethyl angelate | 0.05 |
| isoamyl propionate | 0.05 |
| 3-methylamyl isobutyrate | 0.04 |
| (Z) 3-hexenyl isovalerate | 0.03 |

| Ketones | 4.9% |
|------------------------|------|
| pinocarvone | 2.17 |
| pinocamphone | 1.56 |
| isopinocamphone | 0.67 |
| 3-methyl cyclohexanone | 0.34 |
| verbenone | 0.13 |
| 2 hexanone | 0.03 |

| Sesquiterpenes | 0.16% |
|-------------------|-------|
| β selinene | 0.11 |
| longicyclene | 0.03 |
| (E,E) α Farnesene | 0.02 |

| Sesquiterpenols | 0.1% |
|-----------------|------|
| junenol | 0.10 |

| Other | 2.41% |
|-------------------|-------|
| unknown | 1.82 |
| (Z) hex-3-en-1-ol | 0.32 |
| (E) 2-hexenol | 0.09 |
| 1-hexanol | 0.08 |
| 1-octen-3-ol | 0.03 |
| 2-pentylfuran | 0.02 |
| prenol | 0.02 |
| limonene dioxide | 0.02 |
| 1-octanol | 0.01 |

Client



Source



Chamomile, Roman (*Anthemis nobilis* (syn *Chamaemulum nobile*))
IT-59267

Sample

Chamomile, Roman (*Anthemis nobilis* (syn
Batch #:..... IT-59267
Type:..... Essential Oil
CAS Number:.....
Nature's Gift

Client



Website

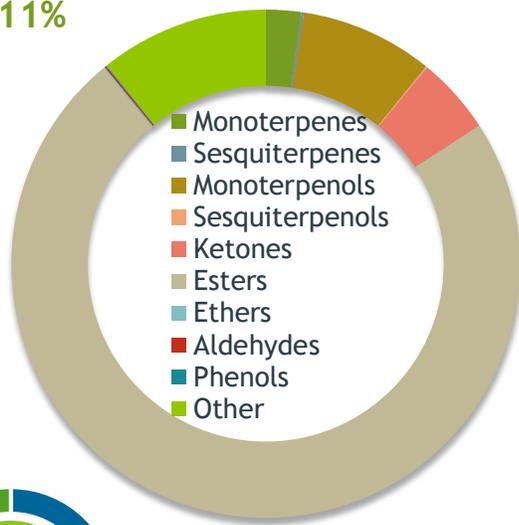


Primary

27.14% | Isobutyl angelate
16.51% | Isoamyl tiglate
8.12% | Methallyl angelate

Esters

73.11%



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 Chamomile, Roman (*Anthemis nobilis* (syn *Chamaemulum nobile*))

Internal Number: | EVS-5160



Essential Validation Services

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

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

Alan Christen

| | |
|-----------------|--------|
| Monoterpenes | 2.24% |
| Sesquiterpenes | 0.16% |
| Monoterpenols | 8.46% |
| Sesquiterpenols | 0.10% |
| Ketones | 4.90% |
| Esters | 73.11% |
| Ethers | 0.11% |
| Aldehydes | 0.11% |
| Phenols | 0.05% |
| Other | 10.76% |

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
- 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



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IT-59267

| Total Percentage | | 89.79% | | |
|------------------|-------|--------|-----------------------------------|--------------------|
| Number | RT | Area % | Compound Name | Chemical Family |
| 1 | 3.64 | 0.03% | 2-Hexanone | Aliphatic Ketone |
| 2 | 3.73 | 0.02% | Prenol | Aliphatic Ester |
| 3 | 4.20 | 0.02% | Hexanal | Aliphatic Aldehyde |
| 4 | 5.66 | 0.32% | cis-Hex-3-en-1-ol | Aliphatic Alcohol |
| 5 | 5.97 | 0.09% | (E)-2-Hexenol | Aliphatic Alcohol |
| 6 | 6.08 | 0.08% | 1-Hexanol | Aliphatic Alcohol |
| 7 | 6.23 | 0.08% | Isoamyl acetate | Aliphatic Ester |
| 8 | 6.28 | 0.15% | 2-Methylbutyl acetate | Aliphatic Ester |
| 9 | 6.85 | 0.05% | Ethyl angelate | Aliphatic Ester |
| 10 | 7.49 | 3.81% | Isobutyl isobutyrate | Aliphatic Ester |
| 11 | 7.73 | 0.24% | Prenyl acetate | Aliphatic Ester |
| 12 | 8.10 | 1.40% | alpha-Pinene | Monoterpene |
| 13 | 8.39 | 2.00% | Isobutyl methacrylate | Aliphatic Ester |
| 14 | 8.63 | 0.06% | Propyl 2-methylbutyrate | Aliphatic Ester |
| 15 | 8.71 | 0.50% | Camphene | Monoterpene |
| 16 | 8.98 | 0.34% | 3-Methyl cyclohexanone | Aliphatic Ketone |
| 17 | 9.28 | 0.05% | Benzaldehyde | Simple Phenolic |
| 18 | 9.68 | 0.05% | Isoamyl propionate | Aliphatic Ester |
| 19 | 9.82 | 0.20% | beta-Pinene | Monoterpene |
| 20 | 10.19 | 0.03% | 1-Octen-3-ol | Aliphatic Alcohol |
| 21 | 10.44 | 0.02% | 2-Pentylfuran | Furan |
| 22 | 10.97 | 0.95% | Isobutyl 2-methylbutyrate | Aliphatic Ester |
| 23 | 11.11 | 0.06% | (Z)-3-Hexenyl acetate | Aliphatic Ester |
| 24 | 11.41 | 0.44% | Isoamyl isobutyrate | Aliphatic Ester |
| 25 | 11.57 | 3.05% | 2-Methylbutyl isobutyrate | Aliphatic Ester |
| 26 | 11.90 | 0.06% | para-Cymene | Monoterpene |
| 27 | 12.08 | 0.08% | Limonene | Monoterpene |
| 28 | 12.17 | 0.05% | 1,8-Cineole | Monoterpene Ether |
| 29 | 12.72 | 1.46% | Isoamyl methacrylate | Aliphatic Ester |
| 30 | 13.31 | 27.14% | Isobutyl angelate | Aliphatic Ester |
| 31 | 13.42 | 0.12% | Prenyl isobutyrate | Aliphatic Ester |
| 32 | 13.86 | 8.12% | Methylallyl angelate | Aliphatic Ester |
| 33 | 14.23 | 0.01% | 1-Octanol | Aliphatic Alcohol |
| 34 | 14.73 | 0.01% | cis-Linalool oxide (5) (furanoid) | Monoterpenol |
| 35 | 14.87 | 1.09% | Butyl angelate | Aliphatic Ester |

Client



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| Number | RT | Area % | Compound Name | Chemical Family |
|--------|--------|--------|---|------------------------|
| 36 | 14.983 | 0.74% | Isobutyl tiglate | Aliphatic Ester |
| 37 | 15.19 | 0.04% | alpha-Pinene oxide | Monoterpene Ether |
| 38 | 15.49 | 0.64% | 2-Methylbutyl 2-methylbutyrate | Aliphatic Ester |
| 39 | 15.59 | 0.02% | Nonanal | Aliphatic Aldehyde |
| 40 | 16.08 | 0.04% | 3-Methylamyl isobutyrate | Aliphatic Ester |
| 41 | 16.52 | 0.05% | alpha-Campholene aldehyde | Monoterpene Aldehyde |
| 42 | 17.32 | 7.57% | trans-Pinocarveol | Monoterpenol |
| 43 | 17.65 | 5.82% | Isoamyl angelate | Aliphatic Ester |
| 44 | 17.93 | 16.51% | Isoamyl tiglate | Aliphatic Ester |
| 45 | 18.04 | 0.24% | Camphene hydrate | Monoterpenol |
| 46 | 18.17 | 1.56% | Pinocamphone | Monoterpene Ketone |
| 47 | 18.22 | 2.17% | Pinocarvone | Monoterpene Ketone |
| 48 | 18.75 | 0.67% | Isopinocamphone | Monoterpene Ketone |
| 49 | 19.18 | 1.16% | Isobutyl 3-hydroxy-2-methylenebutanoate | |
| 50 | 19.61 | 1.34% | (E)-2-Methyl-2-butenyl angelate | |
| 51 | 19.85 | 0.59% | Myrtenol | Monoterpenol |
| 52 | 20.21 | 0.13% | Verbenone | Monoterpene Ketone |
| 53 | 20.94 | 0.02% | cis-Carveol | Monoterpenol |
| 54 | 21.36 | 0.03% | cis-3-Hexenyl isovalerate | Aliphatic Ester |
| 55 | 21.93 | 0.95% | UK Chamomile | |
| 56 | 22.32 | 0.29% | 3-Methylamyl angelate | Aliphatic Ester |
| 57 | 22.84 | 0.03% | trans-Myrtenol | Monoterpenol |
| 58 | 23.47 | 0.15% | (Z)-3-Hexenyl angelate | Aliphatic Ester |
| 59 | 23.80 | 0.87% | UK Chamomile | |
| 60 | 24.57 | 0.02% | Limonene Dioxide | |
| 61 | 25.30 | 0.01% | (E,E)-2,4-Decadienal | Sesquiterpene Aldehyde |
| 62 | 27.30 | 0.03% | Longicyclene | Sesquiterpene |
| 63 | 32.30 | 0.11% | beta-Selinene | Sesquiterpene |
| 64 | 33.11 | 0.02% | (E,E)-alpha-Farnesene | Sesquiterpene |
| 65 | 35.94 | 0.02% | Caryophyllene oxide | Sesquiterpene Ether |
| 66 | 37.09 | 0.10% | Junenol | Sesquiterpenol |
| 67 | 41.11 | 0.01% | Pentadecanal | Sesquiterpene Aldehyde |
| | | | | |
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