

Client



Source



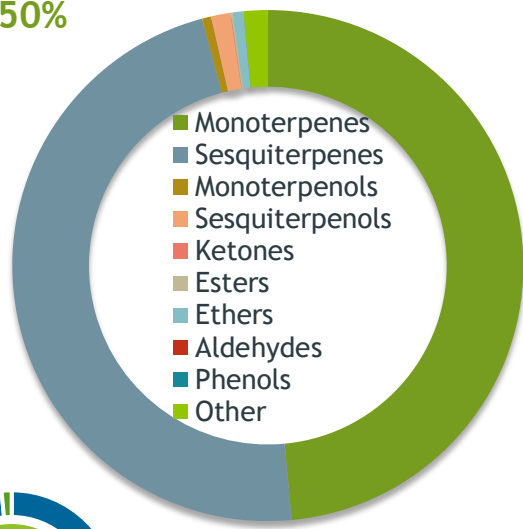
Pepper, Black (*Piper nigrum*)  
MG-59286

Sample

Pepper, Black (*Piper nigrum*)  
Batch #:..... MG-59286  
Type:..... Essential Oil  
CAS Number:... 8006-82-4  
**Nature's Gift**

Monoterpenes

48.50%



Percentage Identified

Client



Website



Primary

**25.80%** | beta-Caryophyllene  
**14.69%** | Limonene  
**10.43%** | alpha-Pinene

Result



Conclusion

No adulterants, diluents, or contaminants were detected via this method. This oil meets the expected profile for genuine Essential Oil of Pepper, Black (*Piper nigrum*)

Internal Number: | EVS-5332



Essential Validation Services

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

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

*Alan Christen*

|                 |        |        |
|-----------------|--------|--------|
| Monoterpenes    | 48.50% | 48.50% |
| Sesquiterpenes  | 47.34% | 47.34% |
| Monoterpenols   |        | 0.57%  |
| Sesquiterpenols |        | 1.22%  |
| Ketones         |        | 0.04%  |
| Esters          |        | 0.11%  |
| Ethers          |        | 0.67%  |
| Aldehydes       |        | 0.00%  |
| Phenols         |        | 0.01%  |
| Other           |        | 1.52%  |

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Pepper, Black (*Piper nigrum*)

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| Total Percentage |       | 98.48% |                                    |                    |
|------------------|-------|--------|------------------------------------|--------------------|
| Number           | RT    | Area % | Compound Name                      | Chemical Family    |
| 1                | 7.73  | 0.06%  | alpha-Thujene                      | Monoterpene        |
| 2                | 8.00  | 10.43% | alpha-Pinene                       | Monoterpene        |
| 3                | 8.57  | 0.40%  | Camphene                           | Monoterpene        |
| 4                | 9.51  | 0.21%  | Sabinene                           | Monoterpene        |
| 5                | 9.70  | 9.43%  | beta-Pinene                        | Monoterpene        |
| 6                | 10.26 | 2.01%  | Myrcene                            | Monoterpene        |
| 7                | 10.79 | 0.02%  | Pseudolimonene                     | Monoterpene        |
| 8                | 10.91 | 1.82%  | alpha-Phellandrene                 | Monoterpene        |
| 9                | 11.03 | 8.10%  | delta-3-Carene                     | Monoterpene        |
| 10               | 11.36 | 0.04%  | alpha-Terpinene                    | Monoterpene        |
| 11               | 11.49 | 0.02%  | para-Cymene                        | Monoterpene        |
| 12               | 11.70 | 0.31%  | ortho-Cymene                       | Monoterpene        |
| 13               | 11.97 | 14.69% | Limonene                           | Monoterpene        |
| 14               | 12.28 | 0.03%  | (Z)-beta-Ocimene                   | Monoterpene        |
| 15               | 12.73 | 0.25%  | (E)-beta-Ocimene                   | Monoterpene        |
| 16               | 13.19 | 0.07%  | gamma-Terpinene                    | Monoterpene        |
| 17               | 13.72 | 0.01%  | trans-Sabinene hydrate             | Monoterpenol       |
| 18               | 14.25 | 0.14%  | Isoterpinolene                     | Monoterpene        |
| 19               | 14.41 | 0.45%  | Terpinolene                        | Monoterpene        |
| 20               | 14.63 | 0.01%  | para-Cymenene                      | Monoterpene        |
| 21               | 15.14 | 0.34%  | Linalool                           | Monoterpenol       |
| 22               | 16.54 | 0.01%  | cis-Limonene oxide                 | Monoterpene Ether  |
| 23               | 16.74 | 0.01%  | trans-Limonene oxide               | Monoterpene Ether  |
| 24               | 16.87 | 0.01%  | trans-Pinocarveol                  | Monoterpenol       |
| 25               | 17.11 | 0.04%  | Camphor                            | Monoterpene Ketone |
| 26               | 18.73 | 0.02%  | Terpinen-4-ol                      | Monoterpenol       |
| 27               | 19.07 | 0.03%  | para-Cymen-8-ol                    | Monoterpenol       |
| 28               | 19.42 | 0.14%  | alpha-Terpineol                    | Monoterpenol       |
| 29               | 19.81 | 0.02%  | trans-para-Mentha-1(7),8-dien-2-ol | Monoterpenol       |
| 30               | 20.50 | 0.02%  | Linalool formate                   | 0.00               |
| 31               | 21.33 | 0.01%  | beta-Cyclocitral                   | Monoterpene        |
| 32               | 23.43 | 0.01%  | Bornyl acetate                     | Monoterpene Ester  |
| 33               | 25.70 | 4.11%  | delta-Elemene                      | Sesquiterpene      |
| 34               | 26.18 | 0.14%  | alpha-Cubebene                     | Sesquiterpene      |
| 35               | 26.41 | 0.01%  | Eugenol                            | Phenylpropanoid    |

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| Number | RT     | Area % | Compound Name           | Chemical Family     |
|--------|--------|--------|-------------------------|---------------------|
| 36     | 27.062 | 0.45%  | alpha-Ylangene          | Phenylpropanoid     |
| 37     | 27.37  | 0.24%  | alpha-Copaene           | Sesquiterpene       |
| 38     | 28.02  | 2.35%  | beta-Elemene            | Sesquiterpene       |
| 39     | 28.57  | 0.02%  | cis-Caryophyllene       | Sesquiterpene       |
| 40     | 28.69  | 0.18%  | alpha-Gurjunene         | Sesquiterpene       |
| 41     | 29.32  | 25.80% | beta-Caryophyllene      | Sesquiterpene       |
| 42     | 29.66  | 0.49%  | gamma-Elemene           | Sesquiterpene       |
| 43     | 29.89  | 0.65%  | alpha-Guaiene           | Sesquiterpene       |
| 44     | 30.12  | 0.02%  | 6,9-Guaiadiene          | Sesquiterpene       |
| 45     | 30.47  | 0.11%  | beta-Copaene            | Sesquiterpene       |
| 46     | 30.65  | 2.33%  | alpha-Humulene          | Sesquiterpene       |
| 47     | 30.91  | 0.04%  | trans-Muurola-3,5-diene | Sesquiterpene       |
| 48     | 31.36  | 0.06%  | gamma-Gurjunene         | Sesquiterpene       |
| 49     | 31.53  | 0.14%  | gamma-Muuroloene        | Sesquiterpene       |
| 50     | 31.73  | 4.04%  | Germacrene D            | Sesquiterpene       |
| 51     | 31.82  | 0.05%  | gamma-Selinene          | Sesquiterpene       |
| 52     | 32.03  | 2.93%  | beta-Selinene           | Sesquiterpene       |
| 53     | 32.13  | 0.12%  | Viridiflorene           | Sesquiterpene       |
| 54     | 32.33  | 2.28%  | alpha-Selinene          | Sesquiterpene       |
| 55     | 32.47  | 0.03%  | alpha-Muuroloene        | Sesquiterpene       |
| 56     | 32.63  | 0.05%  | beta-Cadinene           | Sesquiterpene       |
| 57     | 32.82  | 0.09%  | (E,E)-alpha-Farnesene   | Sesquiterpene       |
| 58     | 32.90  | 0.10%  | beta-Bisabolene         | Sesquiterpene       |
| 59     | 33.01  | 0.04%  | gamma-Cadinene          | Sesquiterpene       |
| 60     | 33.10  | 0.01%  | Cubebol                 | Sesquiterpenol      |
| 61     | 33.26  | 0.30%  | delta-Cadinene          | Sesquiterpene       |
| 62     | 33.34  | 0.02%  | trans-Calamenene        | Sesquiterpene       |
| 63     | 33.62  | 0.01%  | trans-gamma-Bisabolene  | Sesquiterpene       |
| 64     | 33.78  | 0.03%  | trans-Cadina-1,4-diene  | Sesquiterpene       |
| 65     | 33.95  | 0.02%  | alpha-Cadinene          | Sesquiterpene       |
| 66     | 34.09  | 0.03%  | alpha-Calacorene        | Sesquiterpene       |
| 67     | 34.19  | 0.01%  | trans-alpha-Bisabolene  | Sesquiterpene       |
| 68     | 34.42  | 0.10%  | Elemol                  | Sesquiterpenol      |
| 69     | 34.72  | 0.06%  | Germacrene B            | Sesquiterpene       |
| 70     | 35.01  | 0.02%  | (E)-Nerolidol           | Sesquiterpenol      |
| 71     | 35.60  | 0.59%  | Caryophyllene oxide     | Sesquiterpene Ether |

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|    |       |       |                            |                     |
|----|-------|-------|----------------------------|---------------------|
| 72 | 35.78 | 0.02% | Viridiflorol               | Sesquiterpenol      |
| 73 | 36.02 | 0.07% | Spathulenol                | Sesquiterpenol      |
| 74 | 36.51 | 0.04% | Longiborneol               | Sesquiterpenol      |
| 75 | 36.67 | 0.06% | Humulene epoxide II        | Sesquiterpene Ether |
| 76 | 37.00 | 0.06% | Globulol                   | Sesquiterpenol      |
| 77 | 37.15 | 0.07% | Junenol                    | Sesquiterpenol      |
| 78 | 37.45 | 0.57% | Isospathulenol             | Sesquiterpenol      |
| 79 | 37.79 | 0.10% | allo-Aromadendrene epoxide | Sesquiterpene Ester |
| 80 | 37.96 | 0.02% | T-Cadinol                  | Sesquiterpenol      |
| 81 | 38.03 | 0.03% | T-Muurolol                 | Sesquiterpenol      |
| 82 | 38.13 | 0.02% | alpha-Muurolol             | Sesquiterpenol      |
| 83 | 38.48 | 0.18% | Pogostol                   | Sesquiterpenol      |
| 84 | 39.16 | 0.03% | Khusinol                   | Sesquiterpenol      |
| 85 | 39.69 | 0.01% | alpha-Bisabolol            | Sesquiterpenol      |
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