

Client



Source



Rose (Rosa damascena)  
40145C

Sample

Rose (Rosa damascena)  
Batch#:..... 40145C  
Type:..... Essential Oil  
CAS Number:... 8007-01-0  
American College of Healthcare Sciences

Client



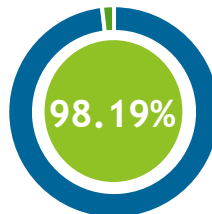
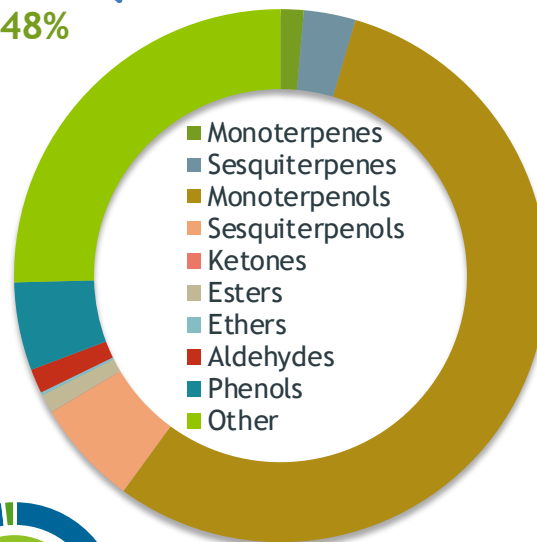
Website

Primary

31.42% Citronellol  
14.89% Nonadecane  
13.51% Geraniol

### Monoterpenols

55.48%



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 Rose (Rosa damascena)  
RI = 1.4610 @ 22C SG 0.8645 @ 22C

Internal Number: | EVS-3449



### Essential Validation Services

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

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

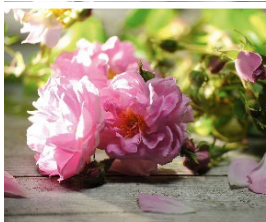
|                 |        |
|-----------------|--------|
| Monoterpenes    | 1.40%  |
| Sesquiterpenes  | 3.15%  |
| Monoterpenols   | 55.48% |
| Sesquiterpenols | 6.41%  |
| Ketones         | 0.02%  |
| Esters          | 1.13%  |
| Ethers          | 0.19%  |
| Aldehydes       | 1.48%  |
| Phenols         | 5.34%  |
| Other           | 25.41% |

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40145C

| Total Percentage |       | 98.19% |                                   |                      |
|------------------|-------|--------|-----------------------------------|----------------------|
| Number           | RT    | Area % | Compound Name                     | Chemical Family      |
| 1                | 4.55  | 0.01%  | Hexanal                           | Aliphatic Aldehyde   |
| 2                | 6.05  | 0.01%  | cis-Hex-3-en-1-ol                 | Aliphatic Alcohol    |
| 3                | 6.48  | 0.09%  | 1-Hexanol                         | Aliphatic Alcohol    |
| 4                | 7.57  | 0.06%  | Heptanal                          | Aliphatic Aldehyde   |
| 5                | 8.74  | 0.51%  | alpha-Pinene                      | Monoterpene          |
| 6                | 9.84  | 0.03%  | Benzaldehyde                      | Simple Phenolic      |
| 7                | 10.51 | 0.10%  | beta-Pinene                       | Monoterpene          |
| 8                | 10.88 | 0.01%  | 6-Methyl-5-hepten-2-one           | Aliphatic Ketone     |
| 9                | 11.09 | 0.41%  | Myrcene                           | Monoterpene          |
| 10               | 11.68 | 0.01%  | Octanal                           | Aliphatic Aldehyde   |
| 11               | 11.76 | 0.01%  | alpha-Phellandrene                | Monoterpene          |
| 12               | 12.25 | 0.04%  | alpha-Terpinene                   | Monoterpene          |
| 13               | 12.58 | 0.03%  | para-Cymene                       | Monoterpene          |
| 14               | 12.80 | 0.09%  | Limonene                          | Monoterpene          |
| 15               | 12.91 | 0.01%  | 1,8-Cineole                       | Monoterpene Ether    |
| 16               | 13.17 | 0.03%  | (Z)-beta-Ocimene                  | Monoterpene          |
| 17               | 13.64 | 0.06%  | (E)-beta-Ocimene                  | Monoterpene          |
| 18               | 14.13 | 0.06%  | gamma-Terpinene                   | Monoterpene          |
| 19               | 14.70 | 0.01%  | cis-Linalool oxide (5) (furanoid) | Monoterpenol         |
| 20               | 15.38 | 0.06%  | Terpinolene                       | Monoterpene          |
| 21               | 16.10 | 2.44%  | Linalool                          | Monoterpenol         |
| 22               | 16.32 | 0.06%  | Nonanal                           | Aliphatic Aldehyde   |
| 23               | 16.54 | 1.47%  | 2-Phenylethanol                   | Simple Phenolic      |
| 24               | 17.29 | 0.11%  | trans-Rose oxide                  | Monoterpene Ether    |
| 25               | 18.48 | 0.05%  | Nerol oxide                       | Monoterpene Ether    |
| 26               | 19.35 | 0.03%  | para-Mentha-1,5-dien-8-ol         | Monoterpenol         |
| 27               | 19.76 | 0.34%  | Terpinen-4-ol                     | Monoterpenol         |
| 28               | 20.45 | 0.93%  | alpha-Terpineol                   | Monoterpenol         |
| 29               | 21.04 | 0.01%  | Decanal                           | Aliphatic Aldehyde   |
| 30               | 21.90 | 6.44%  | Nerol                             | Monoterpenol         |
| 31               | 22.13 | 31.42% | Citronellol                       | Monoterpenol         |
| 32               | 22.47 | 0.48%  | Neral                             | Monoterpene Aldehyde |
| 33               | 22.60 | 0.08%  | cis-Isogeraniol                   | Monoterpenol         |
| 34               | 23.15 | 13.51% | Geraniol                          | Monoterpenol         |
| 35               | 23.81 | 0.77%  | Geranial                          | Monoterpene Aldehyde |

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40145C

| Number | RT     | Area % | Compound Name                  | Chemical Family        |
|--------|--------|--------|--------------------------------|------------------------|
| 36     | 24.096 | 0.03%  | Citronellyl formate            | Monoterpene Aldehyde   |
| 37     | 25.63  | 0.03%  | Undecanal                      | Sesquiterpene Aldehyde |
| 38     | 26.20  | 0.06%  | Methyl geranate                | Monoterpene Ester      |
| 39     | 27.46  | 1.95%  | Eugenol                        | Phenylpropanoid        |
| 40     | 27.84  | 0.05%  | Neryl acetate                  | Monoterpene Ester      |
| 41     | 28.14  | 0.01%  | Decanoic acid                  | Monoterpene Acid       |
| 42     | 28.49  | 0.01%  | alpha-Copaene                  | Sesquiterpene          |
| 43     | 28.69  | 0.68%  | Geranyl acetate                | Monoterpene Ester      |
| 44     | 28.81  | 0.08%  | beta-Bourbonene                | Sesquiterpene          |
| 45     | 29.10  | 0.13%  | beta-Elemene                   | Sesquiterpene          |
| 46     | 29.58  | 1.89%  | Methyl eugenol                 | Phenylpropanoid        |
| 47     | 29.71  | 0.02%  | Tetradecane                    | Alkane                 |
| 48     | 30.30  | 0.63%  | beta-Caryophyllene             | Sesquiterpene          |
| 49     | 30.75  | 0.04%  | beta-Copaene                   | Sesquiterpene          |
| 50     | 31.02  | 0.47%  | alpha-Guaiene                  | Sesquiterpene          |
| 51     | 31.32  | 0.03%  | Thujopsene                     | Sesquiterpene          |
| 52     | 31.78  | 0.36%  | alpha-Humulene                 | Sesquiterpene          |
| 53     | 32.63  | 0.02%  | gamma-Murolene                 | Sesquiterpene          |
| 54     | 32.84  | 0.63%  | Germacrene D                   | Sesquiterpene          |
| 55     | 33.05  | 0.05%  | 2-Phenylethyl 3-methylbutyrate | Monoterpene Ester      |
| 56     | 33.15  | 0.06%  | beta-Selinene                  | Sesquiterpene          |
| 57     | 33.49  | 0.11%  | Aciphyllene                    | Sesquiterpene          |
| 58     | 33.72  | 0.42%  | delta-Guaiene                  | Sesquiterpene          |
| 59     | 33.84  | 0.39%  | Pentadecane                    | Alkane                 |
| 60     | 33.92  | 0.08%  | (E,E)-alpha-Farnesene          | Sesquiterpene          |
| 61     | 34.18  | 0.03%  | Tridecanal                     | Sesquiterpene Aldehyde |
| 62     | 34.39  | 0.08%  | delta-Cadinene                 | Sesquiterpene          |
| 63     | 35.54  | 0.03%  | Elemol                         | Sesquiterpenol         |
| 64     | 36.11  | 0.15%  | (E)-Nerolidol                  | Sesquiterpenol         |
| 65     | 36.76  | 0.02%  | Caryophyllene oxide            | Sesquiterpene Ether    |
| 66     | 36.88  | 0.04%  | 2-Phenylethyl tiglate          | Phenolic Ester         |
| 67     | 37.46  | 0.02%  | Ethyl dodecanoate              | Monoterpene Ester      |
| 68     | 37.75  | 0.10%  | Hexadecane                     | Alkane                 |
| 69     | 38.15  | 0.01%  | Tetradecanal                   | Sesquiterpene Aldehyde |
| 70     | 38.31  | 0.03%  | Junenol                        | Sesquiterpenol         |
| 71     | 38.72  | 0.15%  | gamma-Eudesmol                 | Sesquiterpenol         |

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Source



Rose (*Rosa damascena*)  
40125C

|    |       |        |                        |                        |
|----|-------|--------|------------------------|------------------------|
| 72 | 39.17 | 0.03%  | T-Muurolol             | Sesquiterpenol         |
| 73 | 39.26 | 0.01%  | alpha-Muurolol         | Sesquiterpenol         |
| 74 | 39.58 | 0.38%  | alpha-Eudesmol         | Sesquiterpenol         |
| 75 | 40.25 | 0.01%  | Citronellyl tiglate    | Monoterpene Ester      |
| 76 | 40.57 | 0.28%  | Tetradecanol           | Monoterpeneol          |
| 77 | 41.05 | 0.11%  | (Z,Z)-Farnesol         | Sesquiterpenol         |
| 78 | 41.29 | 0.01%  | 2-Pentadecanone        | Sesquiterpene Ketone   |
| 79 | 41.47 | 2.49%  | Heptadecane            | Alkane                 |
| 80 | 41.88 | 1.46%  | (Z,E)-Farnesol         | Sesquiterpenol         |
| 81 | 42.61 | 0.05%  | (E,E)-Farnesol         | Sesquiterpenol         |
| 82 | 43.53 | 0.08%  | Benzyl benzoate        | Phenolic Ester         |
| 83 | 44.09 | 0.04%  | 1-Pentadecanol         | Sesquiterpenol         |
| 84 | 45.00 | 0.21%  | Octadecane             | Alkane                 |
| 85 | 45.48 | 0.01%  | Hexadecanal            | Sesquiterpene Aldehyde |
| 86 | 46.54 | 0.11%  | 2-Phenylethyl benzoate | Phenolic Ester         |
| 87 | 47.46 | 3.97%  | 1-Hexadecanol          | Sesquiterpenol         |
| 88 | 48.42 | 14.89% | Nonadecane             | Alkane                 |
| 89 | 51.59 | 1.03%  | Eicosane               | Alkane                 |
| 90 | 54.30 | 0.10%  | 1-Octadecanol          | Diterpenol             |
| 91 | 54.68 | 4.19%  | Heneicosane            | Alkane                 |
| 92 | 57.43 | 0.06%  | Docosane               | Alkane                 |
| 93 | 58.85 | 0.53%  | Tricosane              | Alkane                 |
| 94 | 59.76 | 0.02%  | Tetracosane            | Alkane                 |
| 95 | 60.46 | 0.10%  | Pentacosane            | Alkane                 |
| 96 | 61.56 | 0.05%  | Heptacosane            | Alkane                 |
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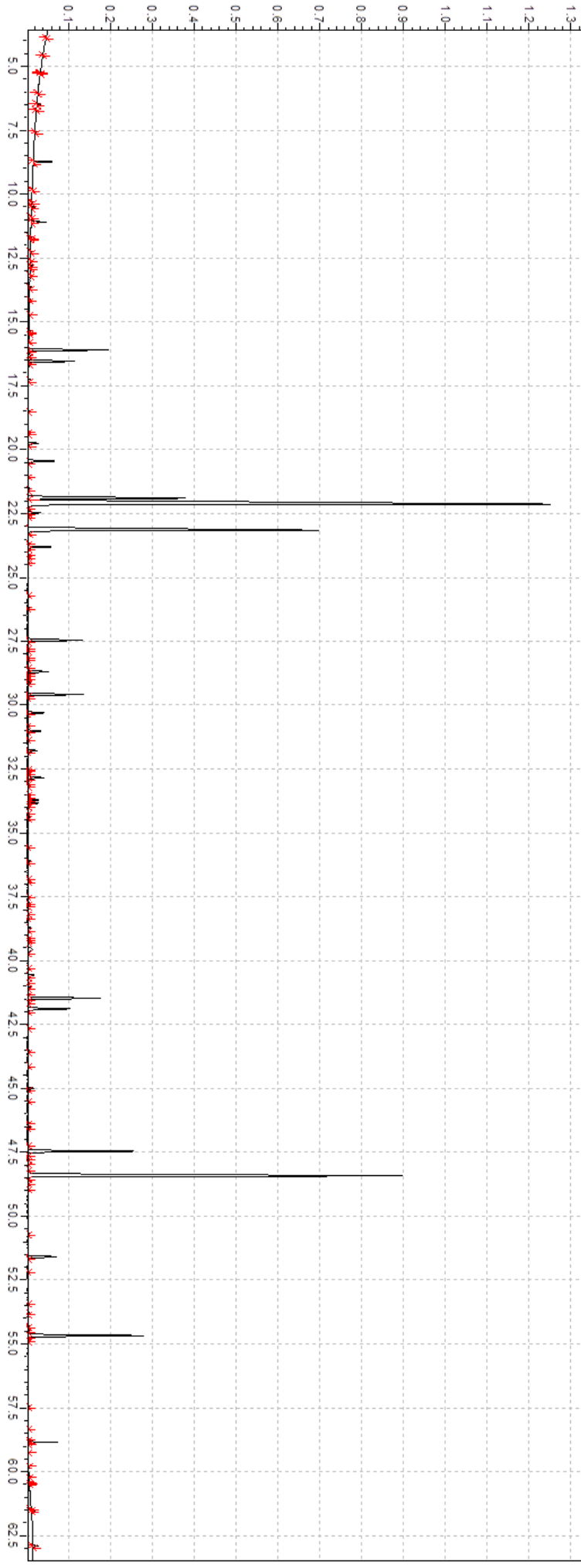
Source



Rose (*Rosa damascena*)  
40125C

| Compound              | Percent | Other Origins |        | Conform? |
|-----------------------|---------|---------------|--------|----------|
| Ethanol               | 0.00%   | 0.00%         | 4.00%  | Yes      |
| Citronellol           | 31.42%  | 30.00%        | 49.00% | Yes      |
| Nerol                 | 6.44%   | 3.00%         | 12.00% | Yes      |
| Geraniol              | 13.51%  | 6.00%         | 29.00% | Yes      |
| 2-Phenylethyl acetate | 0.00%   | 0.00%         | 3.00%  | Yes      |
| Eugenol               | 1.95%   | 1.00%         | 6.00%  | Yes      |
| Heptadecane           | 2.49%   | 0.80%         | 3.00%  | Yes      |
| Nonadecane            | 0.00%   | 1.00%         | 4.50%  | No       |
| Nonadecane            | 14.89%  | 6.00%         | 16.00% | Yes      |
| Heneicosane           | 4.19%   | 2.00%         | 5.50%  | Yes      |

(110,000,000)  
TIC (1.00)





Purity Laboratories, Inc.

17387 SW 63rd St.  
Lake Oswego, OR 97035  
Phone: 503.297.3636 Fax: 503.297.3738

www.puritylabsinc.com

Page 1 of 1

**For:** American College of Healthcare Sciences  
5940 SW Hood ave  
Portland, Oregon, 97239  
United States  
(971) 703-5064

**Case#:** 1911332

**Received Date:** 11/27/2019

**Tested Date:** 12/03/2019

**Completed Date:** 12/05/2019


**Purchase Order:**

**ATTN:** Natalya Shepeleva  
natalyashepeleva@achs.edu  
(971) 703-5064

**Case Notes:**

|                               |             |  |  |
|-------------------------------|-------------|--|--|
| <b>Sample#:</b> 1911332-01    |             | <b>Sample Description:</b> Rose oil<br>Lot# 40125C |  |
| <b>Test</b>                   | <b>Unit</b> | <b>Result</b>                                      | <b>Method</b>                            |
| AMPA                          | ppb         | < 130  | HPLC                                     |
| Glyphosate                    | ppb         | < 1160   | HPLC                                     |
| Multiresidue Pesticide Screen | pass / fail | Pass   | AOAC 2007.1, European EN 15662<br>Method |

Reviewed By \_\_\_\_\_

  
Joshua Wyman  
Quality Assurance  
Manager

Date \_\_\_\_\_

12/5/19

Test Report