

# 6-Octen-1-ol, 3,7-dimethyl-, (R)-

|                      |                                                                              |
|----------------------|------------------------------------------------------------------------------|
| Other names:         | (-)-beta-citronellol                                                         |
|                      | (-)-citronellol                                                              |
|                      | (R)-(+)-«beta»-Citronellol                                                   |
|                      | (R)-3,7-dimethyloct-6-en-1-ol                                                |
|                      | (R)-citronellol                                                              |
|                      | (S)-(-)-B-citronellol                                                        |
|                      | (S)-(-)-citronellol                                                          |
|                      | (S)-3,7-dimethyl-6-octen-1-ol                                                |
|                      | L-citronellol                                                                |
| Inchi:               | InChI=1S/C10H20O/c1-9(2)5-4-6-10(3)7-8-11/h5,10-11H,4,6-8H2,1-3H3/t10-/m0/s1 |
| InchiKey:            | QMVPMAAFGQKVCJ-JTQLQIEISA-N                                                  |
| Formula:             | C10H20O                                                                      |
| SMILES:              | CC(C)=CCCC(C)CCO                                                             |
| Mol. weight [g/mol]: | 156.27                                                                       |
| CAS:                 | 1117-61-9                                                                    |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -34.27  | kJ/mol  | Joback Method  |
| hf            | -299.81 | kJ/mol  | Joback Method  |
| hfus          | 21.11   | kJ/mol  | Joback Method  |
| hvap          | 54.18   | kJ/mol  | Joback Method  |
| log10ws       | -2.88   |         | Crippen Method |
| logp          | 2.751   |         | Crippen Method |
| mcvol         | 153.330 | ml/mol  | McGowan Method |
| pc            | 2448.32 | kPa     | Joback Method  |
| rinpol        | 1220.00 |         | NIST Webbook   |
| rinpol        | 1220.00 |         | NIST Webbook   |
| tb            | 523.98  | K       | Joback Method  |
| tc            | 694.42  | K       | Joback Method  |
| tf            | 229.24  | K       | Joback Method  |
| vc            | 0.590   | m3/kmol | Joback Method  |

# Temperature Dependent Properties

| Property code | Value    | Unit    | Temperature [K] | Source                                                                   |
|---------------|----------|---------|-----------------|--------------------------------------------------------------------------|
| cpg           | 362.91   | J/mol×K | 523.98          | Joback Method                                                            |
| cpg           | 376.24   | J/mol×K | 552.39          | Joback Method                                                            |
| cpg           | 388.99   | J/mol×K | 580.79          | Joback Method                                                            |
| cpg           | 401.17   | J/mol×K | 609.20          | Joback Method                                                            |
| cpg           | 412.81   | J/mol×K | 637.61          | Joback Method                                                            |
| cpg           | 423.93   | J/mol×K | 666.01          | Joback Method                                                            |
| cpg           | 434.56   | J/mol×K | 694.42          | Joback Method                                                            |
| pvap          | 1.33e-03 | kPa     | 293.17          | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap          | 1.33e-03 | kPa     | 293.17          | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap          | 1.32e-03 | kPa     | 293.17          | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap          | 2.27e-03 | kPa     | 298.18          | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap          | 2.27e-03 | kPa     | 298.19          | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap          | 2.27e-03 | kPa     | 298.20          | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap          | 3.79e-03 | kPa     | 303.16          | Vapor pressures and thermophysical properties of selected monoterpenoids |

|      |          |     |        |                                                                          |
|------|----------|-----|--------|--------------------------------------------------------------------------|
| pvap | 3.81e-03 | kPa | 303.19 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 3.80e-03 | kPa | 303.20 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 6.21e-03 | kPa | 308.19 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 6.20e-03 | kPa | 308.19 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 6.20e-03 | kPa | 308.21 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 9.90e-03 | kPa | 313.20 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 9.90e-03 | kPa | 313.21 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 9.91e-03 | kPa | 313.21 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.02     | kPa | 318.23 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.02     | kPa | 318.24 | Vapor pressures and thermophysical properties of selected monoterpenoids |

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|------|------|-----|--------|--------------------------------------------------------------------------|
| pvap | 0.02 | kPa | 318.24 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.02 | kPa | 323.22 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.02 | kPa | 323.23 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.02 | kPa | 323.23 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.04 | kPa | 328.20 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.04 | kPa | 328.21 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.04 | kPa | 328.21 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.06 | kPa | 333.23 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.06 | kPa | 333.23 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.06 | kPa | 333.23 | Vapor pressures and thermophysical properties of selected monoterpenoids |

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|------|------|-----|--------|--------------------------------------------------------------------------|
| pvap | 0.08 | kPa | 338.19 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.08 | kPa | 338.20 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.08 | kPa | 338.20 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.12 | kPa | 343.19 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.12 | kPa | 343.19 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.12 | kPa | 343.19 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.17 | kPa | 348.14 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.17 | kPa | 348.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.17 | kPa | 348.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.24 | kPa | 353.10 | Vapor pressures and thermophysical properties of selected monoterpenoids |

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|------|----------|-----|--------|--------------------------------------------------------------------------|
| pvap | 0.24     | kPa | 353.10 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.24     | kPa | 353.10 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.33     | kPa | 358.01 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.33     | kPa | 358.02 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.33     | kPa | 358.02 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.46     | kPa | 362.97 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.46     | kPa | 362.98 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 0.46     | kPa | 362.98 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 1.29e-04 | kPa | 273.65 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 1.30e-04 | kPa | 273.65 | Vapor pressures and thermophysical properties of selected monoterpenoids |

|      |          |     |        |                                                                          |
|------|----------|-----|--------|--------------------------------------------------------------------------|
| pvap | 1.33e-04 | kPa | 273.65 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 2.31e-04 | kPa | 278.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 2.28e-04 | kPa | 278.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 2.35e-04 | kPa | 278.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 4.30e-04 | kPa | 283.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 4.32e-04 | kPa | 283.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 4.30e-04 | kPa | 283.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 7.70e-04 | kPa | 288.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 7.77e-04 | kPa | 288.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 7.79e-04 | kPa | 288.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |

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|------|----------|-----|--------|--------------------------------------------------------------------------|
| pvap | 1.36e-03 | kPa | 293.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 1.36e-03 | kPa | 293.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 1.36e-03 | kPa | 293.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 2.33e-03 | kPa | 298.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 2.33e-03 | kPa | 298.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 2.32e-03 | kPa | 298.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 3.87e-03 | kPa | 303.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 3.87e-03 | kPa | 303.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 3.88e-03 | kPa | 303.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 6.28e-03 | kPa | 308.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |

|      |          |     |        |                                                                          |
|------|----------|-----|--------|--------------------------------------------------------------------------|
| pvap | 6.30e-03 | kPa | 308.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |
| pvap | 6.30e-03 | kPa | 308.15 | Vapor pressures and thermophysical properties of selected monoterpenoids |

## Pressure Dependent Properties

| Property code | Value  | Unit | Pressure [kPa] | Source       |
|---------------|--------|------|----------------|--------------|
| tbrp          | 385.70 | K    | 1.60           | NIST Webbook |

## Sources

|                                                                           |                                                                                                                                             |
|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Crippen Method:                                                           | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</a>                                   |
| Crippen Method:                                                           | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                           |
| Vapor pressures and thermophysical properties of selected monoterpenoids: | <a href="https://www.doi.org/10.1016/j.fluid.2015.07.031">https://www.doi.org/10.1016/j.fluid.2015.07.031</a>                               |
| Joback Method:                                                            | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                       |
| McGowan Method:                                                           | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                       |
| NIST Webbook:                                                             | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C1117619&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1117619&amp;Units=SI</a> |

## Legend

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>gf:</b>      | Standard Gibbs free energy of formation         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>pvap:</b>    | Vapor pressure                                  |

|                |                                   |
|----------------|-----------------------------------|
| <b>rinpol:</b> | Non-polar retention indices       |
| <b>tb:</b>     | Normal Boiling Point Temperature  |
| <b>tbrp:</b>   | Boiling point at reduced pressure |
| <b>tc:</b>     | Critical Temperature              |
| <b>tf:</b>     | Normal melting (fusion) point     |
| <b>vc:</b>     | Critical Volume                   |

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