

# Verbenol

**Other names:**

Bicyclo[3.1.1]hept-3-en-2-ol, 4,6,6-trimethyl-  
Berbenol  
2-Pinen-4-ol  
4,6,6-Trimethylbicyclo[3.1.1]hept-3-en-2-ol  
4,6,6-Trimethyl-bicyclo[3,1,1]hept-3-en-2-ol  
d-Verbenol

**Inchi:**

InChI=1S/C10H16O/c1-6-4-9(11)8-5-7(6)10(8,2)3/h4,7-9,11H,5H2,1-3H3/t7-,8+,9-/m0/s1

**InchiKey:**

WONIGEXYPVIKFS-YIZRAAEISA-N

**Formula:**

C10H16O

**SMILES:**

CC1=CC(O)C2CC1C2(C)C

**Mol. weight [g/mol]:**

152.23

**CAS:**

473-67-6

## Physical Properties

| Property code | Value   | Unit   | Source         |
|---------------|---------|--------|----------------|
| gf            | 5.32    | kJ/mol | Joback Method  |
| hf            | -241.65 | kJ/mol | Joback Method  |
| hfus          | 16.59   | kJ/mol | Joback Method  |
| hvap          | 53.72   | kJ/mol | Joback Method  |
| log10ws       | -2.30   |        | Crippen Method |
| logp          | 1.969   |        | Crippen Method |
| mcvol         | 131.610 | ml/mol | McGowan Method |
| pc            | 3082.99 | kPa    | Joback Method  |
| rinpol        | 1140.00 |        | NIST Webbook   |
| rinpol        | 1128.00 |        | NIST Webbook   |
| rinpol        | 1130.00 |        | NIST Webbook   |
| rinpol        | 1098.00 |        | NIST Webbook   |
| rinpol        | 1121.00 |        | NIST Webbook   |
| rinpol        | 1147.00 |        | NIST Webbook   |
| rinpol        | 1140.00 |        | NIST Webbook   |
| rinpol        | 1140.00 |        | NIST Webbook   |
| rinpol        | 1110.00 |        | NIST Webbook   |
| rinpol        | 1132.00 |        | NIST Webbook   |
| rinpol        | 1144.00 |        | NIST Webbook   |
| rinpol        | 1146.00 |        | NIST Webbook   |
| rinpol        | 1110.00 |        | NIST Webbook   |
| rinpol        | 1148.00 |        | NIST Webbook   |

|        |         |                      |               |
|--------|---------|----------------------|---------------|
| rinpol | 1142.00 |                      | NIST Webbook  |
| rinpol | 1123.00 |                      | NIST Webbook  |
| rinpol | 1140.00 |                      | NIST Webbook  |
| rinpol | 1105.00 |                      | NIST Webbook  |
| rinpol | 1145.00 |                      | NIST Webbook  |
| rinpol | 1138.00 |                      | NIST Webbook  |
| rinpol | 1136.00 |                      | NIST Webbook  |
| rinpol | 1136.00 |                      | NIST Webbook  |
| rinpol | 1145.00 |                      | NIST Webbook  |
| rinpol | 1135.00 |                      | NIST Webbook  |
| rinpol | 1122.00 |                      | NIST Webbook  |
| rinpol | 1136.00 |                      | NIST Webbook  |
| rinpol | 1121.00 |                      | NIST Webbook  |
| rinpol | 1132.00 |                      | NIST Webbook  |
| rinpol | 1142.00 |                      | NIST Webbook  |
| rinpol | 1138.00 |                      | NIST Webbook  |
| rinpol | 1134.00 |                      | NIST Webbook  |
| ripol  | 1678.00 |                      | NIST Webbook  |
| ripol  | 1669.00 |                      | NIST Webbook  |
| ripol  | 1685.00 |                      | NIST Webbook  |
| ripol  | 1669.00 |                      | NIST Webbook  |
| ripol  | 1680.00 |                      | NIST Webbook  |
| ripol  | 1686.00 |                      | NIST Webbook  |
| ripol  | 1670.00 |                      | NIST Webbook  |
| ripol  | 1678.00 |                      | NIST Webbook  |
| ripol  | 1665.00 |                      | NIST Webbook  |
| ripol  | 1665.00 |                      | NIST Webbook  |
| tb     | 533.17  | K                    | Joback Method |
| tc     | 729.30  | K                    | Joback Method |
| tf     | 324.34  | K                    | Joback Method |
| vc     | 0.502   | m <sup>3</sup> /kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 336.85 | J/mol×K | 533.17          | Joback Method |
| cpg           | 351.53 | J/mol×K | 565.86          | Joback Method |
| cpg           | 365.30 | J/mol×K | 598.55          | Joback Method |
| cpg           | 378.26 | J/mol×K | 631.23          | Joback Method |
| cpg           | 390.53 | J/mol×K | 663.92          | Joback Method |
| cpg           | 402.21 | J/mol×K | 696.61          | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                     |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C473676&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C473676&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>mccvol:</b>  | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>ripol:</b>   | Polar retention indices                         |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tc:</b>      | Critical Temperature                            |
| <b>tf:</b>      | Normal melting (fusion) point                   |
| <b>vc:</b>      | Critical Volume                                 |

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