# Cyclopentanol, 3-methyl-

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|---|---|
| **Other names:** | 3-Methylcyclopentanol |
| | 3-methylcyclopentanol, mixed isomers |
| **Inchi:** | InChI=1S/C6H12O/c1-5-2-3-6(7)4-5/h5-7H,2-4H2,1H3 |
| **InchiKey:** | VEALHWXMCIRWGC-UHFFFAOYSA-N |
| **Formula:** | C6H12O |
| **SMILES:** | CC1CCC(O)C1 |
| **Mol. weight [g/mol]:** | 100.16 |
| **CAS:** | 18729-48-1 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -108.34 | kJ/mol | Joback Method |
| hf | -279.26 | kJ/mol | Joback Method |
| hfus | 10.39 | kJ/mol | Joback Method |
| hvap | 45.58 | kJ/mol | Joback Method |
| log10ws | -1.36 | | Crippen Method |
| logp | 1.167 | | Crippen Method |
| mcvol | 90.410 | ml/mol | McGowan Method |
| pc | 4135.61 | kPa | Joback Method |
| rinpol | 836.60 | | NIST Webbook |
| ripol | 1342.00 | | NIST Webbook |
| ripol | 1342.00 | | NIST Webbook |
| tb | 421.70 | K | NIST Webbook |
| tb | 424.00 ± 5.00 | K | NIST Webbook |
| tc | 626.67 | K | Joback Method |
| tf | 224.86 | K | Joback Method |
| vc | 0.331 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 190.21 | J/mol×K | 439.47 | Joback Method |
| cpg | 202.53 | J/mol×K | 470.67 | Joback Method |
| cpg | 214.29 | J/mol×K | 501.87 | Joback Method |

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|---|---|---|---|---|
| cpg | 225.50 | J/mol×K | 533.07 | Joback Method |
| cpg | 236.17 | J/mol×K | 564.27 | Joback Method |
| cpg | 246.32 | J/mol×K | 595.47 | Joback Method |
| cpg | 255.97 | J/mol×K | 626.67 | Joback Method |
| dvisc | 0.0399340 | Pa×s | 224.86 | Joback Method |
| dvisc | 0.0100642 | Pa×s | 260.63 | Joback Method |
| dvisc | 0.0035374 | Pa×s | 296.40 | Joback Method |
| dvisc | 0.0015573 | Pa×s | 332.16 | Joback Method |
| dvisc | 0.0008042 | Pa×s | 367.93 | Joback Method |
| dvisc | 0.0004669 | Pa×s | 403.70 | Joback Method |
| dvisc | 0.0002961 | Pa×s | 439.47 | Joback Method |

# Correlations

| Information | Value |
|---|---|
| Property code | pvap |
| Equation | ln(Pvp) = A + B/(T + C) |
| Coeff. A | 1.62850e+01 |
| Coeff. B | -4.28654e+03 |
| Coeff. C | -5.83690e+01 |
| Temperature range (K), min. | 326.32 |
| Temperature range (K), max. | 448.99 |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C18729481&Units=SI

**The Yaws Handbook of Vapor Pressure:** https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l

**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

**Joback Method:** https://en.wikipedia.org/wiki/Joback_method

# Legend

**cpg:** Ideal gas heat capacity

**dvisc:** Dynamic viscosity

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|---|---|
| **gf:** | Standard Gibbs free energy of formation |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **pvap:** | Vapor pressure |
| **rinpol:** | Non-polar retention indices |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |