# 5,6-Dihydro-5-methyluracil

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|---|---|
| **Other names:** | 5,6-Dihydro-2,4-dihydroxy-5-methylpyrimidine<br>Dihydrothymine<br>2,4(1H,3H)-Pyrimidinedione, dihydro-5-methyl-<br>Hydrouracil, 5-methyl-<br>5-Methyl-5,6-dihydrouracil<br>5,6-Dihydrothymine |
| **Inchi:** | InChI=1S/C5H8N2O2/c1-3-2-6-5(9)7-4(3)8/h3H,2H2,1H3,(H2,6,7,8,9) |
| **InchiKey:** | NBAKTGXDIBVZOO-UHFFFAOYSA-N |
| **Formula:** | C5H8N2O2 |
| **SMILES:** | CC1CNC(=O)NC1=O |
| **Mol. weight [g/mol]:** | 128.13 |
| **CAS:** | 696-04-8 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -54.09 | kJ/mol | Joback Method |
| hf | -291.99 | kJ/mol | Joback Method |
| hfus | 18.74 | kJ/mol | Joback Method |
| hvap | 49.16 | kJ/mol | Joback Method |
| log10ws | -0.48 | | Crippen Method |
| logp | -0.538 | | Crippen Method |
| mcvol | 93.550 | ml/mol | McGowan Method |
| pc | 5304.68 | kPa | Joback Method |
| rinpol | 1523.80 | | NIST Webbook |
| rinpol | 1523.80 | | NIST Webbook |
| tb | 566.09 | K | Joback Method |
| tc | 826.71 | K | Joback Method |
| tf | 499.99 | K | Joback Method |
| vc | 0.337 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 221.19 | J/mol×K | 566.09 | Joback Method |

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|---|---|---|---|---|
| cpg | 235.27 | J/mol×K | 609.53 | Joback Method |
| cpg | 248.80 | J/mol×K | 652.96 | Joback Method |
| cpg | 261.65 | J/mol×K | 696.40 | Joback Method |
| cpg | 273.71 | J/mol×K | 739.84 | Joback Method |
| cpg | 284.87 | J/mol×K | 783.28 | Joback Method |
| cpg | 295.01 | J/mol×K | 826.71 | Joback Method |

# Sources

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|---|---|
| **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 |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C696048&Units=SI |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |