# 1,4-Cyclohexanedimethanol

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|---|---|
| **Other names:** | 1,4-Bis(hydroxymethyl)cyclohexane |
| | 1,4-Dimethylolcyclohexane |
| | 1,4-Cyclohexanedimethanol,c&t |
| | 1,4-Bis(hydroxymethyl)cyclohexane,c&t |
| | Cyclohexane-1,4-dimethanol,c&t |
| | trans-1,4-Cyclohexanedimethanol |
| | CHDM |
| | 1,4-Chidm |
| | Cyclohexane-1,4-dimethanol |
| | (4-Hydroxymethylcyclohexyl)methanol |
| | CHDM mixture of isomers |
| | PM 1597 |
| | EAN 087583 |
| | cyclohex-1,4-ylenedimethanol |
| **Inchi:** | InChI=1S/C8H16O2/c9-5-7-1-2-8(6-10)4-3-7/h7-10H,1-6H2 |
| **InchiKey:** | YIMQCDZDWXUDCA-UHFFFAOYSA-N |
| **Formula:** | C8H16O2 |
| **SMILES:** | OCC1CCC(CO)CC1 |
| **Mol. weight [g/mol]:** | 144.21 |
| **CAS:** | 105-08-8 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -240.42 | kJ/mol | Joback Method |
| hf | -478.93 | kJ/mol | Joback Method |
| hfus | 17.56 | kJ/mol | Joback Method |
| hvap | 66.88 | kJ/mol | Joback Method |
| log10ws | -1.11 | | Crippen Method |
| logp | 0.777 | | Crippen Method |
| mcvol | 124.460 | ml/mol | McGowan Method |
| pc | 3763.78 | kPa | Joback Method |
| tb | 556.20 | K | NIST Webbook |
| tc | 762.42 | K | Joback Method |
| tf | 304.70 | K | Joback Method |
| vc | 0.454 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 334.28 | J/mol×K | 581.68 | Joback Method |
| cpg | 347.06 | J/mol×K | 611.80 | Joback Method |
| cpg | 359.21 | J/mol×K | 641.93 | Joback Method |
| cpg | 370.76 | J/mol×K | 672.05 | Joback Method |
| cpg | 381.72 | J/mol×K | 702.18 | Joback Method |
| cpg | 392.09 | J/mol×K | 732.30 | Joback Method |
| cpg | 401.91 | J/mol×K | 762.42 | Joback Method |
| dvisc | 0.0469058 | Pa×s | 304.70 | Joback Method |
| dvisc | 0.0070785 | Pa×s | 350.86 | Joback Method |
| dvisc | 0.0016582 | Pa×s | 397.03 | Joback Method |
| dvisc | 0.0005256 | Pa×s | 443.19 | Joback Method |
| dvisc | 0.0002069 | Pa×s | 489.35 | Joback Method |
| dvisc | 0.0000957 | Pa×s | 535.52 | Joback Method |
| dvisc | 0.0000500 | Pa×s | 581.68 | Joback Method |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C105088&Units=SI
**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
**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

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|---|---|
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |