# 4,4'-DIHYDROXY-3,3'-DIMETHOXYBIPHENYL

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|---|---|
| **Other names:** | 1,1'-Biphenyl, 4,4'-dihydroxy-3,3'-dimethoxy |
| | 4,4'-Biguaiacol |
| | 4,4'-Biphenyldiol, 3,3'-dimethoxy- |
| | 4,4'-Dihydroxy-3,3'-dimethoxybiphenyl |
| **Inchi:** | InChI=1S/C14H14O4/c1-17-13-7-9(3-5-11(13)15)10-4-6-12(16)14(8-10)18-2/h3-8,15-16H |
| **InchiKey:** | JJTJFVSZYDSLOT-UHFFFAOYSA-N |
| **Formula:** | C14H14O4 |
| **SMILES:** | COc1cc(-c2ccc(O)c(OC)c2)ccc1O |
| **Mol. weight [g/mol]:** | 246.26 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| hf | -449.54 | kJ/mol | Cheméo Relay (1.0) |
| hfus | 33.26 | kJ/mol | Joback Method |
| hvap | 122.24 | kJ/mol | Cheméo Relay (1.0) |
| ie | 7.52 | eV | Cheméo Relay (1.0) |
| log10ws | -3.26 | | Cheméo Relay (1.0) |
| logp | 2.782 | | Crippen Method |
| mcvol | 184.080 | ml/mol | McGowan Method |
| tb | 629.59 | K | Cheméo Relay (1.0) |
| tf | 434.15 | K | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 520.56 | J/mol×K | 789.12 | Joback Method |
| cpg | 590.37 | J/mol×K | 1037.90 | Joback Method |
| cpg | 579.36 | J/mol×K | 996.44 | Joback Method |
| cpg | 568.28 | J/mol×K | 954.97 | Joback Method |
| cpg | 556.99 | J/mol×K | 913.51 | Joback Method |
| cpg | 545.37 | J/mol×K | 872.05 | Joback Method |
| cpg | 533.27 | J/mol×K | 830.58 | Joback Method |
| dvisc | 0.0000016 | Pa×s | 691.22 | Joback Method |
| dvisc | 0.0000005 | Pa×s | 789.12 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0000007 | Pa×s | 756.49 | Joback Method |
| dvisc | 0.0000010 | Pa×s | 723.85 | Joback Method |
| dvisc | 0.0000082 | Pa×s | 593.32 | Joback Method |
| dvisc | 0.0000026 | Pa×s | 658.59 | Joback Method |
| dvisc | 0.0000045 | Pa×s | 625.95 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Cheméo Relay (1.0):** | |
| **Cheméo Relay (1.0, beta):** | |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C4433094&Units=SI |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **ie:** | Ionization energy |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **tb:** | Normal Boiling Point Temperature |
| **tf:** | Normal melting (fusion) point |