# 2,2'-Dichlorobenzil

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|---|---|
| **Other names:** | 2,2'-Dichlorodibenzoyl |
| | Benzil, 2,2'-dichloro- |
| | Ethanedione, bis(2-chlorophenyl)- |
| **Inchi:** | InChI=1S/C14H8Cl2O2/c15-11-7-3-1-5-9(11)13(17)14(18)10-6-2-4-8-12(10)16/h1-8H |
| **InchiKey:** | VOSNNSVWVJFJCR-UHFFFAOYSA-N |
| **Formula:** | C14H8Cl2O2 |
| **SMILES:** | O=C(C(=O)c1ccccc1Cl)c1ccccc1Cl |
| **Mol. weight [g/mol]:** | 279.12 |
| **CAS:** | 21854-95-5 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -9.14 | kJ/mol | Joback Method |
| hf | -138.81 | kJ/mol | Joback Method |
| hfus | 30.91 | kJ/mol | Joback Method |
| hvap | 74.90 | kJ/mol | Joback Method |
| log10ws | -4.97 | | Crippen Method |
| logp | 4.059 | | Crippen Method |
| mcvol | 188.220 | ml/mol | McGowan Method |
| pc | 2835.36 | kPa | Joback Method |
| tb | 765.64 | K | Joback Method |
| tc | 1023.86 | K | Joback Method |
| tf | 485.12 | K | Joback Method |
| vc | 0.714 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 446.04 | J/mol×K | 765.64 | Joback Method |
| cpg | 456.87 | J/mol×K | 808.68 | Joback Method |
| cpg | 466.62 | J/mol×K | 851.71 | Joback Method |
| cpg | 475.38 | J/mol×K | 894.75 | Joback Method |
| cpg | 483.21 | J/mol×K | 937.79 | Joback Method |
| cpg | 490.19 | J/mol×K | 980.83 | Joback Method |

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|---|---|---|---|---|
| cpg | 496.40 | J/mol×K | 1023.86 | Joback Method |
| dvisc | 0.0010475 | Pa×s | 485.12 | Joback Method |
| dvisc | 0.0006746 | Pa×s | 531.87 | Joback Method |
| dvisc | 0.0004665 | Pa×s | 578.63 | Joback Method |
| dvisc | 0.0003409 | Pa×s | 625.38 | Joback Method |
| dvisc | 0.0002602 | Pa×s | 672.13 | Joback Method |
| dvisc | 0.0002057 | Pa×s | 718.89 | Joback Method |
| dvisc | 0.0001674 | Pa×s | 765.64 | Joback Method |

# Sources

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|---|---|
| **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=C21854955&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

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