# Ethane, 1,1-bis(p-chlorophenyl)-

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|---|---|
| **Other names:** | 2,2-Bis(p-chlorophenyl)ethane |
| | DDE |
| | p,p'-Dichlorodiphenyl ethane |
| | Benzene, 1,1'-ethylidenebis[4-chloro- |
| | 1,1-Bis(4-chlorophenyl)ethane |
| | Ethane, 1,1-bis(4-chlorophenyl)- |
| **Inchi:** | InChI=1S/C14H12Cl2/c1-10(11-2-6-13(15)7-3-11)12-4-8-14(16)9-5-12/h2-10H,1H3 |
| **InchiKey:** | KTEARTXATWOYDB-UHFFFAOYSA-N |
| **Formula:** | C14H12Cl2 |
| **SMILES:** | CC(c1ccc(Cl)cc1)c1ccc(Cl)cc1 |
| **Mol. weight [g/mol]:** | 251.15 |
| **CAS:** | 3547-04-4 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 246.26 | kJ/mol | Joback Method |
| hf | 81.07 | kJ/mol | Joback Method |
| hfus | 24.19 | kJ/mol | Joback Method |
| hvap | 61.02 | kJ/mol | Joback Method |
| log10ws | -5.32 | | Crippen Method |
| logp | 5.145 | | Crippen Method |
| mcvol | 185.080 | ml/mol | McGowan Method |
| pc | 2510.03 | kPa | Joback Method |
| rinpol | 1950.00 | | NIST Webbook |
| tb | 657.46 | K | Joback Method |
| tc | 910.84 | K | Joback Method |
| tf | 370.26 | K | Joback Method |
| vc | 0.696 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 425.34 | J/mol×K | 657.46 | Joback Method |
| cpg | 488.45 | J/mol×K | 868.61 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 477.97 | J/mol×K | 826.38 | Joback Method |
| cpg | 466.50 | J/mol×K | 784.15 | Joback Method |
| cpg | 453.96 | J/mol×K | 741.92 | Joback Method |
| cpg | 440.27 | J/mol×K | 699.69 | Joback Method |
| cpg | 498.01 | J/mol×K | 910.84 | Joback Method |
| dvisc | 0.0001504 | Pa×s | 657.46 | Joback Method |
| dvisc | 0.0001904 | Pa×s | 609.59 | Joback Method |
| dvisc | 0.0002508 | Pa×s | 561.73 | Joback Method |
| dvisc | 0.0003479 | Pa×s | 513.86 | Joback Method |
| dvisc | 0.0005162 | Pa×s | 465.99 | Joback Method |
| dvisc | 0.0008383 | Pa×s | 418.13 | Joback Method |
| dvisc | 0.0015430 | Pa×s | 370.26 | 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=C3547044&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# 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 |
| **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 |

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