# 2-Chlorodiphenylmethane

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|---|---|
| **Other names:** | 1-Benzyl-2-chlorobenzene |
| | Diphenylmethane, 2-chloro |
| **Inchi:** | InChI=1S/C13H11Cl/c14-13-9-5-4-8-12(13)10-11-6-2-1-3-7-11/h1-9H,10H2 |
| **InchiKey:** | IKKSPFNZXBWDQA-UHFFFAOYSA-N |
| **Formula:** | C13H11Cl |
| **SMILES:** | Clc1ccccc1Cc1ccccc1 |
| **Mol. weight [g/mol]:** | 202.68 |
| **CAS:** | 29921-41-3 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 261.84 | kJ/mol | Joback Method |
| hf | 134.20 | kJ/mol | Joback Method |
| hfus | 21.32 | kJ/mol | Joback Method |
| hvap | 54.13 | kJ/mol | Joback Method |
| log10ws | -4.26 | | Crippen Method |
| logp | 3.931 | | Crippen Method |
| mcvol | 158.750 | ml/mol | McGowan Method |
| pc | 2902.98 | kPa | Joback Method |
| rinpol | 272.20 | | NIST Webbook |
| rinpol | 272.20 | | NIST Webbook |
| tb | 592.61 | K | Joback Method |
| tc | 842.20 | K | Joback Method |
| tf | 331.55 | K | Joback Method |
| vc | 0.597 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 351.47 | J/mol×K | 592.61 | Joback Method |
| cpg | 417.22 | J/mol×K | 800.61 | Joback Method |
| cpg | 406.25 | J/mol×K | 759.01 | Joback Method |
| cpg | 394.27 | J/mol×K | 717.41 | Joback Method |
| cpg | 381.19 | J/mol×K | 675.81 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 366.95 | J/mol×K | 634.21 | Joback Method |
| cpg | 427.26 | J/mol×K | 842.20 | Joback Method |
| dvisc | 0.0001877 | Pa×s | 592.61 | Joback Method |
| dvisc | 0.0002363 | Pa×s | 549.10 | Joback Method |
| dvisc | 0.0003095 | Pa×s | 505.59 | Joback Method |
| dvisc | 0.0004265 | Pa×s | 462.08 | Joback Method |
| dvisc | 0.0006282 | Pa×s | 418.57 | Joback Method |
| dvisc | 0.0010122 | Pa×s | 375.06 | Joback Method |
| dvisc | 0.0018486 | Pa×s | 331.55 | Joback Method |

# Sources

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|---|---|
| **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=C29921413&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# 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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