# 2,2',4,6'-tetrachloro-3-methyl-diphenylmethane

**Other names:** 2,2',4,6'-tetrachlorobenzyl 3-toluene
**Inchi:** InChI=1S/C14H10Cl4/c1-8-11(15)6-5-9(14(8)18)7-10-12(16)3-2-4-13(10)17/h2-6H,7H2,1
**InchiKey:** WQCFXZHBWZFDAX-UHFFFAOYSA-N
**Formula:** C14H10Cl4
**SMILES:** Cc1c(Cl)ccc(Cc2c(Cl)cccc2Cl)c1Cl
**Mol. weight [g/mol]:** 320.04

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 195.95 | kJ/mol | Joback Method |
| hf | 20.46 | kJ/mol | Joback Method |
| hfus | 34.94 | kJ/mol | Joback Method |
| hvap | 72.16 | kJ/mol | Joback Method |
| log10ws | -7.99 | | Aqueous Solubility Prediction Method |
| logp | 6.199 | | Crippen Method |
| mcvol | 209.560 | ml/mol | McGowan Method |
| pc | 2218.71 | kPa | Joback Method |
| rinpol | 2165.60 | | NIST Webbook |
| rinpol | 2153.50 | | NIST Webbook |
| rinpol | 2153.50 | | NIST Webbook |
| tb | 747.70 | K | Joback Method |
| tc | 1002.50 | K | Joback Method |
| tf | 482.66 | K | Joback Method |
| vc | 0.799 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 466.32 | J/mol×K | 747.70 | Joback Method |
| cpg | 477.97 | J/mol×K | 790.17 | Joback Method |
| cpg | 488.65 | J/mol×K | 832.63 | Joback Method |
| cpg | 498.43 | J/mol×K | 875.10 | Joback Method |
| cpg | 507.35 | J/mol×K | 917.56 | Joback Method |

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|---|---|---|---|---|
| cpg | 515.47 | J/mol×K | 960.03 | Joback Method |
| cpg | 522.84 | J/mol×K | 1002.50 | Joback Method |
| dvisc | 0.0006543 | Pa×s | 482.66 | Joback Method |
| dvisc | 0.0004524 | Pa×s | 526.83 | Joback Method |
| dvisc | 0.0003312 | Pa×s | 571.01 | Joback Method |
| dvisc | 0.0002535 | Pa×s | 615.18 | Joback Method |
| dvisc | 0.0002012 | Pa×s | 659.35 | Joback Method |
| dvisc | 0.0001643 | Pa×s | 703.53 | Joback Method |
| dvisc | 0.0001375 | Pa×s | 747.70 | Joback Method |

# Sources

**Aqueous Solubility Prediction Method:** http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=R181170&Units=SI
**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l
**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
**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