# 2,2'-Diethyldiphenylamine

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|---|---|
| **Other names:** | 2-ethyl-N-(2-ethylphenyl)aniline |
| **Inchi:** | InChI=1S/C16H19N/c1-3-13-9-5-7-11-15(13)17-16-12-8-6-10-14(16)4-2/h5-12,17H,3-4H2 |
| **InchiKey:** | RZFNPHWOOGJMQE-UHFFFAOYSA-N |
| **Formula:** | C16H19N |
| **SMILES:** | CCc1ccccc1Nc1ccccc1CC |
| **Mol. weight [g/mol]:** | 225.33 |
| **CAS:** | 64653-59-4 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 378.79 | kJ/mol | Joback Method |
| hf | 130.02 | kJ/mol | Joback Method |
| hfus | 29.60 | kJ/mol | Joback Method |
| hvap | 63.52 | kJ/mol | Joback Method |
| log10ws | -4.88 | | Crippen Method |
| logp | 4.555 | | Crippen Method |
| mcvol | 198.760 | ml/mol | McGowan Method |
| pc | 2248.26 | kPa | Joback Method |
| rinpol | 1814.30 | | NIST Webbook |
| tb | 678.97 | K | Joback Method |
| tc | 908.92 | K | Joback Method |
| tf | 400.62 | K | Joback Method |
| vc | 0.750 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 526.47 | J/mol×K | 678.97 | Joback Method |
| cpg | 543.82 | J/mol×K | 717.30 | Joback Method |
| cpg | 559.95 | J/mol×K | 755.62 | Joback Method |
| cpg | 574.94 | J/mol×K | 793.95 | Joback Method |
| cpg | 588.84 | J/mol×K | 832.27 | Joback Method |
| cpg | 601.72 | J/mol×K | 870.60 | Joback Method |
| cpg | 613.65 | J/mol×K | 908.92 | Joback Method |

# Sources

| | |
|---|---|
| **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=C64653594&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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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