# 1,6-Dimethyl-2,4-diethylbenzene

**Other names:** Benzene, 3,5-diethyl-1,2-dimethyl
1,2-Dimethyl-3,5-diethylbenzene
**Inchi:** InChI=1S/C12H18/c1-5-11-7-9(3)10(4)12(6-2)8-11/h7-8H,5-6H2,1-4H3
**InchiKey:** SWQIPOCJXNXDPD-UHFFFAOYSA-N
**Formula:** C12H18
**SMILES:** CCc1cc(C)c(C)c(CC)c1
**Mol. weight [g/mol]:** 162.27

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 133.68 | kJ/mol | Joback Method |
| hf | -88.89 | kJ/mol | Joback Method |
| hfus | 19.71 | kJ/mol | Joback Method |
| hvap | 46.57 | kJ/mol | Joback Method |
| log10ws | -4.03 | | Crippen Method |
| logp | 3.428 | | Crippen Method |
| mcvol | 156.180 | ml/mol | McGowan Method |
| pc | 2302.53 | kPa | Joback Method |
| rinpol | 1264.00 | | NIST Webbook |
| ripol | 1519.00 | | NIST Webbook |
| ripol | 1519.00 | | NIST Webbook |
| ripol | 1497.20 | | NIST Webbook |
| ripol | 1519.00 | | NIST Webbook |
| ripol | 1518.90 | | NIST Webbook |
| tb | 515.58 | K | Joback Method |
| tc | 718.31 | K | Joback Method |
| tf | 288.98 | K | Joback Method |
| vc | 0.600 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 347.28 | J/mol×K | 515.58 | Joback Method |
| cpg | 363.09 | J/mol×K | 549.37 | Joback Method |

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|---|---|---|---|---|
| cpg | 378.15 | J/mol×K | 583.16 | Joback Method |
| cpg | 392.49 | J/mol×K | 616.94 | Joback Method |
| cpg | 406.14 | J/mol×K | 650.73 | Joback Method |
| cpg | 419.10 | J/mol×K | 684.52 | Joback Method |
| cpg | 431.41 | J/mol×K | 718.31 | Joback Method |
| dvisc | 0.0013949 | Pa×s | 288.98 | Joback Method |
| dvisc | 0.0008227 | Pa×s | 326.75 | Joback Method |
| dvisc | 0.0005414 | Pa×s | 364.51 | Joback Method |
| dvisc | 0.0003853 | Pa×s | 402.28 | Joback Method |
| dvisc | 0.0002908 | Pa×s | 440.05 | Joback Method |
| dvisc | 0.0002294 | Pa×s | 477.81 | Joback Method |
| dvisc | 0.0001874 | Pa×s | 515.58 | Joback Method |

# Sources

| | |
|---|---|
| **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=R42924&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 |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |

**vc:** Critical Volume