# 1,3-di-isobutylmesitylene

**Inchi:** InChI=1S/C17H28/c1-11(2)8-16-13(5)10-14(6)17(15(16)7)9-12(3)4/h10-12H,8-9H2,1-7H3
**InchiKey:** JOQYFRRUSWTDQJ-UHFFFAOYSA-N
**Formula:** C17H28
**SMILES:** Cc1cc(C)c(CC(C)C)c(C)c1CC(C)C
**Mol. weight [g/mol]:** 232.40

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 161.27 | kJ/mol | Joback Method |
| hf | -214.12 | kJ/mol | Joback Method |
| hfus | 25.22 | kJ/mol | Joback Method |
| hvap | 57.58 | kJ/mol | Joback Method |
| log10ws | -5.70 | | Crippen Method |
| logp | 5.009 | | Crippen Method |
| mcvol | 226.630 | ml/mol | McGowan Method |
| pc | 1522.31 | kPa | Joback Method |
| rinpol | 1640.00 | | NIST Webbook |
| rinpol | 1640.00 | | NIST Webbook |
| tb | 634.08 | K | Joback Method |
| tc | 831.82 | K | Joback Method |
| tf | 327.85 | K | Joback Method |
| vc | 0.868 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 600.46 | J/mol×K | 634.08 | Joback Method |
| cpg | 619.86 | J/mol×K | 667.04 | Joback Method |
| cpg | 638.32 | J/mol×K | 699.99 | Joback Method |
| cpg | 655.84 | J/mol×K | 732.95 | Joback Method |
| cpg | 672.47 | J/mol×K | 765.90 | Joback Method |
| cpg | 688.22 | J/mol×K | 798.86 | Joback Method |
| cpg | 703.11 | J/mol×K | 831.82 | Joback Method |
| dvisc | 0.0016354 | Pa×s | 327.85 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0007757 | Pa×s | 378.89 | Joback Method |
| dvisc | 0.0004393 | Pa×s | 429.93 | Joback Method |
| dvisc | 0.0002806 | Pa×s | 480.96 | Joback Method |
| dvisc | 0.0001954 | Pa×s | 532.00 | Joback Method |
| dvisc | 0.0001449 | Pa×s | 583.04 | Joback Method |
| dvisc | 0.0001128 | Pa×s | 634.08 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R200776&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **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 |

# 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 |