# 1,3-Diphenyl-2-propylpropane

**Inchi:** InChI=1S/C18H22/c1-2-9-18(14-16-10-5-3-6-11-16)15-17-12-7-4-8-13-17/h3-8,10-13,18H
**InchiKey:** DNFPIDCPAFVRPK-UHFFFAOYSA-N
**Formula:** C18H22
**SMILES:** CCCC(Cc1ccccc1)Cc1ccccc1
**Mol. weight [g/mol]:** 238.37
**CAS:** 62155-46-8

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| chl | -9811.00 | kJ/mol | NIST Webbook |
| gf | 323.06 | kJ/mol | Joback Method |
| hf | 52.93 | kJ/mol | Joback Method |
| hfus | 26.94 | kJ/mol | Joback Method |
| hvap | 59.83 | kJ/mol | Joback Method |
| log10ws | -5.32 | | Crippen Method |
| logp | 4.888 | | Crippen Method |
| mcvol | 216.960 | ml/mol | McGowan Method |
| pc | 1930.44 | kPa | Joback Method |
| tb | 664.16 | K | Joback Method |
| tc | 890.11 | K | Joback Method |
| tf | 330.46 | K | Joback Method |
| vc | 0.822 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 578.29 | J/mol×K | 664.16 | Joback Method |
| cpg | 597.96 | J/mol×K | 701.82 | Joback Method |
| cpg | 616.23 | J/mol×K | 739.48 | Joback Method |
| cpg | 633.21 | J/mol×K | 777.13 | Joback Method |
| cpg | 648.97 | J/mol×K | 814.79 | Joback Method |
| cpg | 663.59 | J/mol×K | 852.45 | Joback Method |
| cpg | 677.16 | J/mol×K | 890.11 | Joback Method |
| dvisc | 0.0028308 | Pa×s | 330.46 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0011284 | Pa×s | 386.08 | Joback Method |
| dvisc | 0.0005670 | Pa×s | 441.69 | Joback Method |
| dvisc | 0.0003323 | Pa×s | 497.31 | Joback Method |
| dvisc | 0.0002169 | Pa×s | 552.93 | Joback Method |
| dvisc | 0.0001530 | Pa×s | 608.54 | Joback Method |
| dvisc | 0.0001145 | Pa×s | 664.16 | Joback Method |

# Sources

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|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C62155468&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 |

# Legend

| | |
|---|---|
| **chl:** | Standard liquid enthalpy of combustion |
| **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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |

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