# Benzene, 1-heptyl-2-methyl

**Inchi:** InChI=1S/C14H22/c1-3-4-5-6-7-11-14-12-9-8-10-13(14)2/h8-10,12H,3-7,11H2,1-2H3
**InchiKey:** YGDQXQVHCOFEEP-UHFFFAOYSA-N
**Formula:** C14H22
**SMILES:** CCCCCCCc1ccccc1C
**Mol. weight [g/mol]:** 190.32

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 169.78 | kJ/mol | Joback Method |
| hf | -107.23 | kJ/mol | Joback Method |
| hfus | 25.67 | kJ/mol | Joback Method |
| hvap | 49.70 | kJ/mol | Joback Method |
| log10ws | -4.84 | | Crippen Method |
| logp | 4.508 | | Crippen Method |
| mcvol | 184.360 | ml/mol | McGowan Method |
| pc | 1982.35 | kPa | Joback Method |
| rinpol | 1431.00 | | NIST Webbook |
| ripol | 1765.00 | | NIST Webbook |
| ripol | 1719.00 | | NIST Webbook |
| ripol | 1734.00 | | NIST Webbook |
| ripol | 1750.00 | | NIST Webbook |
| tb | 551.38 | K | Joback Method |
| tc | 746.43 | K | Joback Method |
| tf | 286.48 | K | Joback Method |
| vc | 0.712 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 442.44 | J/mol×K | 551.38 | Joback Method |
| cpg | 460.30 | J/mol×K | 583.89 | Joback Method |
| cpg | 477.25 | J/mol×K | 616.40 | Joback Method |
| cpg | 493.33 | J/mol×K | 648.91 | Joback Method |
| cpg | 508.57 | J/mol×K | 681.42 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 522.99 | J/mol×K | 713.92 | Joback Method |
| cpg | 536.64 | J/mol×K | 746.43 | Joback Method |
| dvisc | 0.0026153 | Pa×s | 286.48 | Joback Method |
| dvisc | 0.0012344 | Pa×s | 330.63 | Joback Method |
| dvisc | 0.0006953 | Pa×s | 374.78 | Joback Method |
| dvisc | 0.0004420 | Pa×s | 418.93 | Joback Method |
| dvisc | 0.0003064 | Pa×s | 463.08 | Joback Method |
| dvisc | 0.0002263 | Pa×s | 507.23 | Joback Method |
| dvisc | 0.0001755 | Pa×s | 551.38 | 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=R13745&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 |

Latest version available from: