# 1-Butyldecalin, cis

**Inchi:** InChI=1S/C14H26/c1-2-3-7-12-9-6-10-13-8-4-5-11-14(12)13/h12-14H,2-11H2,1H3/t12?,1
**InchiKey:** SVAKAMBIIAHLSL-KFTPUPIBSA-N
**Formula:** C14H26
**SMILES:** CCCCC1CCCC2CCCCC12
**Mol. weight [g/mol]:** 194.36

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 132.39 | kJ/mol | Joback Method |
| hf | -231.67 | kJ/mol | Joback Method |
| hfus | 20.96 | kJ/mol | Joback Method |
| hvap | 46.96 | kJ/mol | Joback Method |
| log10ws | -4.75 | | Crippen Method |
| logp | 4.783 | | Crippen Method |
| mcvol | 186.400 | ml/mol | McGowan Method |
| pc | 2001.91 | kPa | Joback Method |
| rinpol | 1460.00 | | NIST Webbook |
| tb | 545.61 | K | Joback Method |
| tc | 753.90 | K | Joback Method |
| tf | 265.10 | K | Joback Method |
| vc | 0.701 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 486.63 | J/mol×K | 545.61 | Joback Method |
| cpg | 596.73 | J/mol×K | 719.18 | Joback Method |
| cpg | 577.29 | J/mol×K | 684.47 | Joback Method |
| cpg | 556.61 | J/mol×K | 649.75 | Joback Method |
| cpg | 534.64 | J/mol×K | 615.04 | Joback Method |
| cpg | 511.33 | J/mol×K | 580.32 | Joback Method |
| cpg | 614.98 | J/mol×K | 753.90 | Joback Method |
| dvisc | 0.0003794 | Pa×s | 545.61 | Joback Method |
| dvisc | 0.0004665 | Pa×s | 498.86 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0005986 | Pa×s | 452.11 | Joback Method |
| dvisc | 0.0008136 | Pa×s | 405.36 | Joback Method |
| dvisc | 0.0011979 | Pa×s | 358.60 | Joback Method |
| dvisc | 0.0019806 | Pa×s | 311.85 | Joback Method |
| dvisc | 0.0039102 | Pa×s | 265.10 | Joback Method |

# Sources

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|---|---|
| **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 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R578128&Units=SI |

# 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 |

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