# Cyclopentanecarboxamide, N-butyl-N-isobutyl-

**Inchi:** InChI=1S/C14H27NO/c1-4-5-10-15(11-12(2)3)14(16)13-8-6-7-9-13/h12-13H,4-11H2,1-3H
**InchiKey:** WCYABKBLHPHKAD-UHFFFAOYSA-N
**Formula:** C14H27NO
**SMILES:** CCCCN(CC(C)C)C(=O)C1CCCC1
**Mol. weight [g/mol]:** 225.37

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 82.97 | kJ/mol | Joback Method |
| hf | -322.14 | kJ/mol | Joback Method |
| hfus | 27.05 | kJ/mol | Joback Method |
| hvap | 55.42 | kJ/mol | Joback Method |
| log10ws | -3.44 | | Crippen Method |
| logp | 3.461 | | Crippen Method |
| mcvol | 208.810 | ml/mol | McGowan Method |
| pc | 1869.17 | kPa | Joback Method |
| rinpol | 1773.00 | | NIST Webbook |
| rinpol | 1773.00 | | NIST Webbook |
| tb | 600.87 | K | Joback Method |
| tc | 792.00 | K | Joback Method |
| tf | 325.84 | K | Joback Method |
| vc | 0.778 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 567.34 | J/mol×K | 600.87 | Joback Method |
| cpg | 587.55 | J/mol×K | 632.72 | Joback Method |
| cpg | 606.67 | J/mol×K | 664.58 | Joback Method |
| cpg | 624.74 | J/mol×K | 696.43 | Joback Method |
| cpg | 641.80 | J/mol×K | 728.29 | Joback Method |
| cpg | 657.89 | J/mol×K | 760.14 | Joback Method |
| cpg | 673.06 | J/mol×K | 792.00 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U415625&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

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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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