

# Cyclopentanecarboxamide, N-butyl-N-3-methylbutyl-

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C15H29NO/c1-4-5-11-16(12-10-13(2)3)15(17)14-8-6-7-9-14/h13-14H,4-12H2,1 |
| <b>InchiKey:</b>            | URJQCUFVACPLFW-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C15H29NO   |
| <b>SMILES:</b>              | CCCCN(CCC(C)C)C(=O)C1CCCC1   |
| <b>Mol. weight [g/mol]:</b> | 239.40   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 91.39   | kJ/mol               | Joback Method  |
| hf            | -342.78 | kJ/mol               | Joback Method  |
| hfus          | 29.64   | kJ/mol               | Joback Method  |
| hvap          | 57.64   | kJ/mol               | Joback Method  |
| log10ws       | -3.86   |                      | Crippen Method |
| logp          | 3.851   |                      | Crippen Method |
| mcvol         | 222.900 | ml/mol               | McGowan Method |
| pc            | 1723.16 | kPa                  | Joback Method  |
| rinpol        | 1911.00 |                      | NIST Webbook   |
| rinpol        | 1911.00 |                      | NIST Webbook   |
| tb            | 623.75  | K                    | Joback Method  |
| tc            | 812.77  | K                    | Joback Method  |
| tf            | 337.11  | K                    | Joback Method  |
| vc            | 0.835   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 622.04 | J/mol×K | 623.75          | Joback Method |
| cpg           | 642.51 | J/mol×K | 655.25          | Joback Method |
| cpg           | 661.89 | J/mol×K | 686.76          | Joback Method |
| cpg           | 680.20 | J/mol×K | 718.26          | Joback Method |
| cpg           | 697.50 | J/mol×K | 749.77          | Joback Method |
| cpg           | 713.83 | J/mol×K | 781.27          | Joback Method |
| cpg           | 729.24 | J/mol×K | 812.77          | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U415627&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U415627&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</a>                         |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                     |

# Legend

|                 |   |
|-----------------|---|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>gf:</b>      | Standard Gibbs free energy of formation         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvp:</b>     | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinp:</b>    | Non-polar retention indices                     |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tc:</b>      | Critical Temperature                            |
| <b>tf:</b>      | Normal melting (fusion) point                   |
| <b>vc:</b>      | Critical Volume                                 |

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