

# Benzamide, 4-butyl-N-butyl-N-undecyl-

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C26H45NO/c1-4-7-10-11-12-13-14-15-16-23-27(22-9-6-3)26(28)25-20-18-24(1 |
| <b>InchiKey:</b>            | JQMOBGVRNCNKTG-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C26H45NO   |
| <b>SMILES:</b>              | CCCCCCCCCN(CCCC)C(=O)c1ccc(CCCC)cc1  |
| <b>Mol. weight [g/mol]:</b> | 387.64   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 252.68  | kJ/mol               | Joback Method  |
| hf            | -399.96 | kJ/mol               | Joback Method  |
| hfus          | 61.37   | kJ/mol               | Joback Method  |
| hvap          | 85.20   | kJ/mol               | Joback Method  |
| log10ws       | -8.70   |                      | Crippen Method |
| logp          | 7.802   |                      | Crippen Method |
| mvol          | 364.990 | ml/mol               | McGowan Method |
| pc            | 898.02  | kPa                  | Joback Method  |
| rinpol        | 2000.00 |                      | NIST Webbook   |
| rinpol        | 2000.00 |                      | NIST Webbook   |
| tb            | 892.25  | K                    | Joback Method  |
| tc            | 1092.98 | K                    | Joback Method  |
| tf            | 504.12  | K                    | Joback Method  |
| vc            | 1.407   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value   | Unit    | Temperature [K] | Source        |
|---------------|---------|---------|-----------------|---------------|
| cpg           | 1204.80 | J/mol×K | 892.25          | Joback Method |
| cpg           | 1225.16 | J/mol×K | 925.71          | Joback Method |
| cpg           | 1244.32 | J/mol×K | 959.16          | Joback Method |
| cpg           | 1262.34 | J/mol×K | 992.62          | Joback Method |
| cpg           | 1279.30 | J/mol×K | 1026.07         | Joback Method |
| cpg           | 1295.28 | J/mol×K | 1059.53         | Joback Method |
| cpg           | 1310.33 | J/mol×K | 1092.98         | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.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>                     |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U415883&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U415883&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</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>hvap:</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>rinpola:</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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