# Benzamide, 4-butyl-N-butyl-N-tetradecyl-

**Inchi:** InChI=1S/C29H51NO/c1-4-7-10-11-12-13-14-15-16-17-18-19-26-30(25-9-6-3)29(31)28-2
**InchiKey:** XRWIPWXAGZMEOH-UHFFFAOYSA-N
**Formula:** C29H51NO
**SMILES:** CCCCCCCCCCCCCCN(CCCC)C(=O)c1ccc(CCCC)cc1
**Mol. weight [g/mol]:** 429.72

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 277.94 | kJ/mol | Joback Method |
| hf | -461.88 | kJ/mol | Joback Method |
| hfus | 69.14 | kJ/mol | Joback Method |
| hvap | 91.87 | kJ/mol | Joback Method |
| log10ws | -9.95 | | Crippen Method |
| logp | 8.973 | | Crippen Method |
| mcvol | 407.260 | ml/mol | McGowan Method |
| pc | 761.00 | kPa | Joback Method |
| rinpol | 2058.00 | | NIST Webbook |
| rinpol | 2058.00 | | NIST Webbook |
| tb | 960.89 | K | Joback Method |
| tc | 1178.19 | K | Joback Method |
| tf | 537.93 | K | Joback Method |
| vc | 1.575 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1397.40 | J/mol×K | 960.89 | Joback Method |
| cpg | 1419.26 | J/mol×K | 997.11 | Joback Method |
| cpg | 1439.75 | J/mol×K | 1033.32 | Joback Method |
| cpg | 1458.96 | J/mol×K | 1069.54 | Joback Method |
| cpg | 1476.99 | J/mol×K | 1105.75 | Joback Method |
| cpg | 1493.96 | J/mol×K | 1141.97 | Joback Method |
| cpg | 1509.95 | J/mol×K | 1178.19 | Joback Method |

# Sources

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|---|---|
| **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=U415884&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **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 |