# Benzamide, 3,4-difluoro-N-(3,4-difluorobenzoyl)-N-butyl-

**Inchi:** InChI=1S/C18H15F4NO2/c1-2-3-8-23(17(24)11-4-6-13(19)15(21)9-11)18(25)12-5-7-14(2

**InchiKey:** FPFCKDFXNLDLIX-UHFFFAOYSA-N

**Formula:** C18H15F4NO2

**SMILES:** CCCCN(C(=O)c1ccc(F)c(F)c1)C(=O)c1ccc(F)c(F)c1

**Mol. weight [g/mol]:** 353.31

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -639.32 | kJ/mol | Joback Method |
| hf | -929.74 | kJ/mol | Joback Method |
| hfus | 47.44 | kJ/mol | Joback Method |
| hvap | 75.13 | kJ/mol | Joback Method |
| log10ws | -6.16 | | Crippen Method |
| logp | 4.326 | | Crippen Method |
| mcvol | 237.160 | ml/mol | McGowan Method |
| pc | 1736.11 | kPa | Joback Method |
| rinpol | 1990.00 | | NIST Webbook |
| rinpol | 1990.00 | | NIST Webbook |
| tb | 801.78 | K | Joback Method |
| tc | 1005.53 | K | Joback Method |
| tf | 530.23 | K | Joback Method |
| vc | 0.929 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 682.01 | J/mol×K | 801.78 | Joback Method |
| cpg | 694.56 | J/mol×K | 835.74 | Joback Method |
| cpg | 706.19 | J/mol×K | 869.70 | Joback Method |
| cpg | 716.94 | J/mol×K | 903.65 | Joback Method |
| cpg | 726.87 | J/mol×K | 937.61 | Joback Method |
| cpg | 736.01 | J/mol×K | 971.57 | Joback Method |
| cpg | 744.42 | J/mol×K | 1005.53 | Joback Method |

# Sources

| | |
|---|---|
| **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=U407808&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 |