# Benzamide, 2,5-difluoro-N-tetradecyl-

**Inchi:** InChI=1S/C21H33F2NO/c1-2-3-4-5-6-7-8-9-10-11-12-13-16-24-21(25)19-17-18(22)14-15
**InchiKey:** ZYYKQUXTZHETHW-UHFFFAOYSA-N
**Formula:** C21H33F2NO
**SMILES:** CCCCCCCCCCCCCCNC(=O)c1cc(F)ccc1F
**Mol. weight [g/mol]:** 353.49

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -210.06 | kJ/mol | Joback Method |
| hf | -714.51 | kJ/mol | Joback Method |
| hfus | 56.27 | kJ/mol | Joback Method |
| hvap | 77.49 | kJ/mol | Joback Method |
| log10ws | -7.92 | | Crippen Method |
| logp | 6.396 | | Crippen Method |
| mcvol | 298.080 | ml/mol | McGowan Method |
| pc | 1151.44 | kPa | Joback Method |
| rinpol | 2588.00 | | NIST Webbook |
| rinpol | 2588.00 | | NIST Webbook |
| tb | 819.10 | K | Joback Method |
| tc | 1008.10 | K | Joback Method |
| tf | 481.66 | K | Joback Method |
| vc | 1.181 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 932.01 | J/mol×K | 819.10 | Joback Method |
| cpg | 949.24 | J/mol×K | 850.60 | Joback Method |
| cpg | 965.48 | J/mol×K | 882.10 | Joback Method |
| cpg | 980.77 | J/mol×K | 913.60 | Joback Method |
| cpg | 995.15 | J/mol×K | 945.10 | Joback Method |
| cpg | 1008.67 | J/mol×K | 976.60 | Joback Method |
| cpg | 1021.37 | J/mol×K | 1008.10 | 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=U407595&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 |