# Benzamide, 6-trifluoromethyl-2-fluoro-N-hexadecyl-

**Inchi:** InChI=1S/C24H37F4NO/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-19-29-23(30)22-20(24(26
**InchiKey:** OFMPLNFNCOEWRW-UHFFFAOYSA-N
**Formula:** C24H37F4NO
**SMILES:** CCCCCCCCCCCCCCCCCNC(=O)c1c(F)cccc1C(F)(F)F
**Mol. weight [g/mol]:** 431.55

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -571.58 | kJ/mol | Joback Method |
| hf | -1177.40 | kJ/mol | Joback Method |
| hfus | 62.78 | kJ/mol | Joback Method |
| hvap | 81.24 | kJ/mol | Joback Method |
| log10ws | -9.53 | | Crippen Method |
| logp | 8.056 | | Crippen Method |
| mcvol | 343.890 | ml/mol | McGowan Method |
| pc | 914.94 | kPa | Joback Method |
| rinpol | 1771.00 | | NIST Webbook |
| rinpol | 1771.00 | | NIST Webbook |
| tb | 883.05 | K | Joback Method |
| tc | 1081.10 | K | Joback Method |
| tf | 519.07 | K | Joback Method |
| vc | 1.373 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1129.53 | J/mol×K | 883.05 | Joback Method |
| cpg | 1147.52 | J/mol×K | 916.06 | Joback Method |
| cpg | 1164.42 | J/mol×K | 949.07 | Joback Method |
| cpg | 1180.33 | J/mol×K | 982.08 | Joback Method |
| cpg | 1195.30 | J/mol×K | 1015.09 | Joback Method |
| cpg | 1209.41 | J/mol×K | 1048.09 | Joback Method |
| cpg | 1222.74 | J/mol×K | 1081.10 | Joback Method |

# Sources

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|---|---|
| **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=U405996&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

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