

# Benzamide, 2-(trifluoromethyl)-N-hexyl-

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C14H18F3NO/c1-2-3-4-7-10-18-13(19)11-8-5-6-9-12(11)14(15,16)17/h5-6,8-9 |
| <b>InchiKey:</b>            | YKPLXBUFLPBXDD-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C14H18F3NO   |
| <b>SMILES:</b>              | CCCCCNC(=O)c1cccc1C(F)(F)F   |
| <b>Mol. weight [g/mol]:</b> | 273.29   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -451.34 | kJ/mol               | Joback Method  |
| hf            | -763.42 | kJ/mol               | Joback Method  |
| hfus          | 34.19   | kJ/mol               | Joback Method  |
| hvap          | 59.13   | kJ/mol               | Joback Method  |
| log10ws       | -5.01   |                      | Crippen Method |
| logp          | 4.016   |                      | Crippen Method |
| mvol          | 201.220 | ml/mol               | McGowan Method |
| pc            | 1913.58 | kPa                  | Joback Method  |
| rinpol        | 1786.00 |                      | NIST Webbook   |
| rinpol        | 1786.00 |                      | NIST Webbook   |
| tb            | 650.00  | K                    | Joback Method  |
| tc            | 838.95  | K                    | Joback Method  |
| tf            | 393.26  | K                    | Joback Method  |
| vc            | 0.795   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 548.66 | J/mol×K | 650.00          | Joback Method |
| cpg           | 563.25 | J/mol×K | 681.49          | Joback Method |
| cpg           | 576.95 | J/mol×K | 712.98          | Joback Method |
| cpg           | 589.81 | J/mol×K | 744.47          | Joback Method |
| cpg           | 601.87 | J/mol×K | 775.96          | Joback Method |
| cpg           | 613.18 | J/mol×K | 807.46          | Joback Method |
| cpg           | 623.77 | J/mol×K | 838.95          | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <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=U407190&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U407190&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</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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