

# 3,4-Difluorobenzoic acid, 3,5-dimethylphenyl ester

|                      |  |
|----------------------|--|
| Inchi:               | InChI=1S/C15H12F2O2/c1-9-5-10(2)7-12(6-9)19-15(18)11-3-4-13(16)14(17)8-11/h3-8H, |
| InchiKey:            | GKASGLKRDPJYLF-UHFFFAOYSA-N  |
| Formula:             | C15H12F2O2   |
| SMILES:              | <chem>Cc1cc(C)cc(OC(=O)c2ccc(F)c(F)c2)c1</chem>                                  |
| Mol. weight [g/mol]: | 262.25   |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -361.82 | kJ/mol  | Joback Method  |
| hf            | -562.77 | kJ/mol  | Joback Method  |
| hfus          | 30.08   | kJ/mol  | Joback Method  |
| hvap          | 63.71   | kJ/mol  | Joback Method  |
| log10ws       | -5.17   |         | Crippen Method |
| logp          | 3.801   |         | Crippen Method |
| mcvol         | 185.670 | ml/mol  | McGowan Method |
| pc            | 2267.57 | kPa     | Joback Method  |
| rinpol        | 1842.00 |         | NIST Webbook   |
| tb            | 690.71  | K       | Joback Method  |
| tc            | 911.11  | K       | Joback Method  |
| tf            | 435.07  | K       | Joback Method  |
| vc            | 0.720   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 478.74 | J/molxK | 690.71          | Joback Method |
| cpg           | 492.36 | J/molxK | 727.44          | Joback Method |
| cpg           | 505.05 | J/molxK | 764.18          | Joback Method |
| cpg           | 516.83 | J/molxK | 800.91          | Joback Method |
| cpg           | 527.72 | J/molxK | 837.64          | Joback Method |
| cpg           | 537.73 | J/molxK | 874.38          | Joback Method |
| cpg           | 546.89 | J/molxK | 911.11          | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <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=U357713&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U357713&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</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>h vap:</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>m cvol:</b>  | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>r inpol:</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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