

# Asparagine, N-trifluoroacetyl, 1-methylethyl ester

|                      |                                                                                    |
|----------------------|------------------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C9H13F3N2O4/c1-4(2)18-7(16)5(3-6(13)15)14-8(17)9(10,11)12/h4-5H,3H2,1-2H3 |
| InchiKey:            | UGWVCQFPDLOFQH-UHFFFAOYSA-N                                                        |
| Formula:             | C9H13F3N2O4                                                                        |
| SMILES:              | CC(C)OC(=O)C(CC(N)=O)NC(=O)C(F)(F)F                                                |
| Mol. weight [g/mol]: | 270.21                                                                             |

## Physical Properties

| Property code | Value    | Unit    | Source         |
|---------------|----------|---------|----------------|
| gf            | -897.49  | kJ/mol  | Joback Method  |
| hf            | -1219.43 | kJ/mol  | Joback Method  |
| hfus          | 30.13    | kJ/mol  | Joback Method  |
| hvap          | 70.83    | kJ/mol  | Joback Method  |
| log10ws       | -1.51    |         | Crippen Method |
| logp          | -0.139   |         | Crippen Method |
| mcvol         | 173.520  | ml/mol  | McGowan Method |
| pc            | 2657.03  | kPa     | Joback Method  |
| rinpol        | 1379.00  |         | NIST Webbook   |
| tb            | 705.75   | K       | Joback Method  |
| tc            | 898.90   | K       | Joback Method  |
| tf            | 473.32   | K       | Joback Method  |
| vc            | 0.670    | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 495.24 | J/mol×K | 705.75          | Joback Method |
| cpg           | 505.63 | J/mol×K | 737.94          | Joback Method |
| cpg           | 515.31 | J/mol×K | 770.13          | Joback Method |
| cpg           | 524.30 | J/mol×K | 802.33          | Joback Method |
| cpg           | 532.63 | J/mol×K | 834.52          | Joback Method |
| cpg           | 540.31 | J/mol×K | 866.71          | Joback Method |
| cpg           | 547.37 | J/mol×K | 898.90          | Joback Method |

# Sources

|                        |                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <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>                                   |
| <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=R84388&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R84388&amp;Units=SI</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>rinpol:</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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