

# Benzamide, N-(2,5-dimethoxyphenyl)-3-methyl-

**Inchi:** InChI=1S/C16H17NO3/c1-11-5-4-6-12(9-11)16(18)17-14-10-13(19-2)7-8-15(14)20-3/h4-16  
**InchiKey:** YTCMZASAFMOCKO-UHFFFAOYSA-N  
**Formula:** C16H17NO3  
**SMILES:** COc1ccc(OC)c(NC(=O)c2cccc(C)c2)c1  
**Mol. weight [g/mol]:** 271.31

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 30.24   | kJ/mol  | Joback Method  |
| hf            | -258.47 | kJ/mol  | Joback Method  |
| hfus          | 33.18   | kJ/mol  | Joback Method  |
| hvap          | 75.75   | kJ/mol  | Joback Method  |
| log10ws       | -4.16   |         | Crippen Method |
| logp          | 3.265   |         | Crippen Method |
| mcvol         | 212.070 | ml/mol  | McGowan Method |
| pc            | 2278.41 | kPa     | Joback Method  |
| rinpol        | 2426.00 |         | NIST Webbook   |
| tb            | 782.66  | K       | Joback Method  |
| tc            | 1012.99 | K       | Joback Method  |
| tf            | 507.53  | K       | Joback Method  |
| vc            | 0.792   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 595.59 | J/mol×K | 782.66          | Joback Method |
| cpg           | 609.93 | J/mol×K | 821.05          | Joback Method |
| cpg           | 623.10 | J/mol×K | 859.44          | Joback Method |
| cpg           | 635.10 | J/mol×K | 897.83          | Joback Method |
| cpg           | 645.96 | J/mol×K | 936.21          | Joback Method |
| cpg           | 655.69 | J/mol×K | 974.60          | Joback Method |
| cpg           | 664.31 | J/mol×K | 1012.99         | 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=U307117&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U307117&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>hvac:</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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