

# Benzeneethanamine, 2,5-dimethoxy-«alpha»,4-dimethyl-

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other names:         | Phenethylamine, 2,5-dimethoxy-«alpha»,4-dimethyl-DOM<br>STP<br>2,5-Dimethoxy-«alpha»,4-dimethylphenylethylamine<br>2,5-Dimethoxy-4-methylamphetamine<br>2,5-Dimethoxy-4-methylphenylisopropylamine<br>2,5-Dimethoxymethylamphetamine<br>2',5'-Dimethoxy-4'-methylamphetamine<br>4-Methyl-2,5-dimethoxyamphetamine<br>(. +/-. )-1-(2,5-Dimethoxy-4-methylphenyl)-2-aminopropane<br>(. +/-. )-1-(4-Methyl-2,5-dimethoxyphenyl)-2-aminopropane<br>(. +/-. )-2,5-Dimethoxy-4-methylamphetamine<br>(. +/-. )-DOM<br>(RS)-DOM<br>dl-2,5-Dimethoxy-4-methylamphetamine<br>dl-4-Methyl-2,5-dimethoxyamphetamine<br>STP (hallucinogen) |
| Inchi:               | InChI=1S/C12H19NO2/c1-8-5-12(15-4)10(6-9(2)13)7-11(8)14-3/h5,7,9H,6,13H2,1-4H3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| InchiKey:            | NTJQREUGJKIARY-UHFFFAOYSA-N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Formula:             | C12H19NO2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| SMILES:              | COc1cc(CC(C)N)c(OC)cc1C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mol. weight [g/mol]: | 209.28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| CAS:                 | 26011-50-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Physical Properties

| Property code | Value       | Unit   | Source         |
|---------------|-------------|--------|----------------|
| gf            | -12.31      | kJ/mol | Joback Method  |
| hf            | -324.82     | kJ/mol | Joback Method  |
| hfus          | 23.76       | kJ/mol | Joback Method  |
| hvap          | 61.64       | kJ/mol | Joback Method  |
| ie            | 7.62 ± 0.06 | eV     | NIST Webbook   |
| ie            | 7.62        | eV     | NIST Webbook   |
| log10ws       | -2.95       |        | Crippen Method |
| logp          | 1.902       |        | Crippen Method |
| mcvol         | 177.900     | ml/mol | McGowan Method |
| pc            | 2372.59     | kPa    | Joback Method  |
| tb            | 632.51      | K      | Joback Method  |

|    |        |                      |               |
|----|--------|----------------------|---------------|
| tc | 843.83 | K                    | Joback Method |
| tf | 401.70 | K                    | Joback Method |
| vc | 0.658  | m <sup>3</sup> /kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 462.71 | J/mol×K | 632.51          | Joback Method |
| cpg           | 478.13 | J/mol×K | 667.73          | Joback Method |
| cpg           | 492.76 | J/mol×K | 702.95          | Joback Method |
| cpg           | 506.60 | J/mol×K | 738.17          | Joback Method |
| cpg           | 519.65 | J/mol×K | 773.39          | Joback Method |
| cpg           | 531.90 | J/mol×K | 808.61          | Joback Method |
| cpg           | 543.34 | J/mol×K | 843.83          | Joback Method |

## Sources

|                 |                                                                                                                                               |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Crippen Method: | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                             |
| Joback Method:  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                         |
| McGowan Method: | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                         |
| NIST Webbook:   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C26011507&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C26011507&amp;Units=SI</a> |
| Crippen Method: | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</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>ie:</b>      | Ionization energy                               |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mccvol:</b>  | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |

|            |                                  |
|------------|----------------------------------|
| <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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