

# 1-Adamantanecarboxylic acid, 4-methoxyphenyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C18H22O3/c1-20-15-2-4-16(5-3-15)21-17(19)18-9-12-6-13(10-18)8-14(7-12)1 |
| <b>InchiKey:</b>            | IISGTOWMMIBYLB-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C18H22O3   |
| <b>SMILES:</b>              | COc1ccc(OC(=O)C23CC4CC(CC(C4)C2)C3)cc1   |
| <b>Mol. weight [g/mol]:</b> | 286.37   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 21.49   | kJ/mol               | Joback Method  |
| hf            | -359.67 | kJ/mol               | Joback Method  |
| hfus          | 27.08   | kJ/mol               | Joback Method  |
| hvap          | 68.62   | kJ/mol               | Joback Method  |
| log10ws       | -4.39   |                      | Crippen Method |
| logp          | 3.817   |                      | Crippen Method |
| mcvol         | 221.450 | ml/mol               | McGowan Method |
| pc            | 2115.83 | kPa                  | Joback Method  |
| rinpol        | 2314.00 |                      | NIST Webbook   |
| tb            | 761.67  | K                    | Joback Method  |
| tc            | 999.87  | K                    | Joback Method  |
| tf            | 495.91  | K                    | Joback Method  |
| vc            | 0.838   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 695.55 | J/mol×K | 761.67          | Joback Method |
| cpg           | 715.56 | J/mol×K | 801.37          | Joback Method |
| cpg           | 734.70 | J/mol×K | 841.07          | Joback Method |
| cpg           | 753.22 | J/mol×K | 880.77          | Joback Method |
| cpg           | 771.34 | J/mol×K | 920.47          | Joback Method |
| cpg           | 789.30 | J/mol×K | 960.17          | Joback Method |
| cpg           | 807.34 | J/mol×K | 999.87          | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <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=U307662&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U307662&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>                                 |

# 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>mccol:</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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