

# 3-Cyclopentylpropionic acid, 4-methoxy-2-methylbutyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C14H26O3/c1-12(9-10-16-2)11-17-14(15)8-7-13-5-3-4-6-13/h12-13H,3-11H2,1 |
| <b>InchiKey:</b>            | QBAAVVKOMZFPGW-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C14H26O3   |
| <b>SMILES:</b>              | COCCC(C)COC(=O)CCC1CCCC1   |
| <b>Mol. weight [g/mol]:</b> | 242.35   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -237.81 | kJ/mol               | Joback Method  |
| hf            | -654.11 | kJ/mol               | Joback Method  |
| hfus          | 26.40   | kJ/mol               | Joback Method  |
| hvap          | 58.19   | kJ/mol               | Joback Method  |
| log10ws       | -3.04   |                      | Crippen Method |
| logp          | 3.173   |                      | Crippen Method |
| mvol          | 210.570 | ml/mol               | McGowan Method |
| pc            | 1818.50 | kPa                  | Joback Method  |
| rinpol        | 1755.00 |                      | NIST Webbook   |
| tb            | 633.27  | K                    | Joback Method  |
| tc            | 823.95  | K                    | Joback Method  |
| tf            | 337.83  | K                    | Joback Method  |
| vc            | 0.796   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 587.91    | J/molxK | 633.27          | Joback Method |
| cpg           | 673.43    | J/molxK | 792.17          | Joback Method |
| cpg           | 658.19    | J/molxK | 760.39          | Joback Method |
| cpg           | 642.04    | J/molxK | 728.61          | Joback Method |
| cpg           | 624.95    | J/molxK | 696.83          | Joback Method |
| cpg           | 606.91    | J/molxK | 665.05          | Joback Method |
| cpg           | 687.76    | J/molxK | 823.95          | Joback Method |
| dvisc         | 0.0001576 | Paxs    | 633.27          | Joback Method |
| dvisc         | 0.0002076 | Paxs    | 584.03          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0002876 | Paxs | 534.79 | Joback Method |
| dvisc | 0.0004256 | Paxs | 485.55 | Joback Method |
| dvisc | 0.0006883 | Paxs | 436.31 | Joback Method |
| dvisc | 0.0012577 | Paxs | 387.07 | Joback Method |
| dvisc | 0.0027399 | Paxs | 337.83 | 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=U354332&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U354332&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</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>dvisc:</b>   | Dynamic viscosity                               |
| <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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