

# Cyclohexanemalonic acid, 5-hydroxy-2-(1-hydroxyethyl)-4,4-dimethyl-alpha-

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C18H29NO4/c1-11(10-19(5)6)18-13-9-17(4,23-15(18)21)8-7-12(13)16(2,3)22- |
| <b>InchiKey:</b>            | SSOFRYHMIDPVCV-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C18H29NO4  |
| <b>SMILES:</b>              | CC(CN(C)C)C12C(=O)OC3(C)CCC(C1C3)C(C)(C)OC2=O                                    |
| <b>Mol. weight [g/mol]:</b> | 323.43   |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -94.34  | kJ/mol  | Joback Method  |
| hf            | -687.04 | kJ/mol  | Joback Method  |
| hfus          | 28.20   | kJ/mol  | Joback Method  |
| hvap          | 71.02   | kJ/mol  | Joback Method  |
| log10ws       | -2.59   |         | Crippen Method |
| logp          | 2.238   |         | Crippen Method |
| mcvol         | 256.760 | ml/mol  | McGowan Method |
| pc            | 1804.63 | kPa     | Joback Method  |
| tb            | 837.19  | K       | Joback Method  |
| tc            | 1079.02 | K       | Joback Method  |
| tf            | 606.15  | K       | Joback Method  |
| vc            | 0.951   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value   | Unit    | Temperature [K] | Source        |
|---------------|---------|---------|-----------------|---------------|
| cpg           | 892.50  | J/molxK | 837.19          | Joback Method |
| cpg           | 918.71  | J/molxK | 877.49          | Joback Method |
| cpg           | 945.51  | J/molxK | 917.80          | Joback Method |
| cpg           | 973.31  | J/molxK | 958.10          | Joback Method |
| cpg           | 1002.50 | J/molxK | 998.41          | Joback Method |
| cpg           | 1033.52 | J/molxK | 1038.71         | Joback Method |
| cpg           | 1066.75 | J/molxK | 1079.02         | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <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=B6005279&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=B6005279&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>                                   |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</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>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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