

# 1,3-Dimethyladamantane-5,7-diol

|                      |                                                                                |
|----------------------|--------------------------------------------------------------------------------|
| Other names:         | 1,3-Dimethyladamantane-5,7-diol<br>1,3-Dimethyladamantene-5,7-diol             |
| Inchi:               | InChI=1S/C12H20O2/c1-9-3-10(2)6-11(13,4-9)8-12(14,5-9)7-10/h13-14H,3-8H2,1-2H3 |
| InchiKey:            | XNTKRLBGVHQKEJ-UHFFFAOYSA-N                                                    |
| Formula:             | C12H20O2                                                                       |
| SMILES:              | CC12CC3(C)CC(O)(C1)CC(O)(C2)C3                                                 |
| Mol. weight [g/mol]: | 196.29                                                                         |

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| hf            | -499.25 | kJ/mol | Cheméo Relay (1.0) |
| hfus          | 3.20    | kJ/mol | Joback Method      |
| ie            | 9.04    | eV     | Cheméo Relay (1.0) |
| logp          | 1.843   |        | Crippen Method     |
| mcvol         | 159.100 | ml/mol | McGowan Method     |
| rinpol        | 1438.00 |        | NIST Webbook       |
| rinpol        | 1438.00 |        | NIST Webbook       |
| rinpol        | 1451.00 |        | NIST Webbook       |
| rinpol        | 1461.00 |        | NIST Webbook       |
| rinpol        | 1484.00 |        | NIST Webbook       |
| tf            | 377.42  | K      | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 488.94 | J/mol×K | 679.10          | Joback Method |
| cpg           | 502.67 | J/mol×K | 714.02          | Joback Method |
| cpg           | 516.44 | J/mol×K | 748.94          | Joback Method |
| cpg           | 530.63 | J/mol×K | 783.85          | Joback Method |
| cpg           | 545.67 | J/mol×K | 818.77          | Joback Method |
| cpg           | 561.95 | J/mol×K | 853.69          | Joback Method |
| cpg           | 579.87 | J/mol×K | 888.61          | 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>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>                             |
| <b>Cheméo Relay (1.0):</b>       |                                                                                                                                               |
| <b>Cheméo Relay (1.0, beta):</b> |                                                                                                                                               |
| <b>NIST Webbook:</b>             | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C10347010&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C10347010&amp;Units=SI</a> |

# Legend

|                |                                              |
|----------------|----------------------------------------------|
| <b>cpg:</b>    | Ideal gas heat capacity                      |
| <b>hf:</b>     | Enthalpy of formation at standard conditions |
| <b>hfus:</b>   | Enthalpy of fusion at standard conditions    |
| <b>ie:</b>     | Ionization energy                            |
| <b>logp:</b>   | Octanol/Water partition coefficient          |
| <b>mcvol:</b>  | McGowan's characteristic volume              |
| <b>rinpol:</b> | Non-polar retention indices                  |
| <b>tf:</b>     | Normal melting (fusion) point                |

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