

# Metacetamol

|                             |   |
|-----------------------------|---|
| <b>Other names:</b>         | 3'-Hydroxyacetanilide<br>3-(Acetylamino)-1-hydroxybenzene<br>3-(Acetylamino)phenol<br>3-acetamidophenol<br>3-hydroxyacetanilide<br>Acetamide, N-(3-hydroxyphenyl)-<br>Acetanilide, 3'-hydroxy-<br>BS 479<br>BS 749<br>Metalid<br>N-(3-Hydroxyphenyl)acetamide<br>N-Acetyl-m-Aminophenol<br>NEBS<br>NSC 3990<br>Pedituss<br>Pyrapap<br>Rystal<br>m-(Acetylamino)phenol<br>m-Acetamidophenol<br>m-Acetaminophenol<br>m-hydroxyacetanilide |
| <b>Inchi:</b>               | InChI=1S/C8H9NO2/c1-6(10)9-7-3-2-4-8(11)5-7/h2-5,11H,1H3,(H,9,10)   |
| <b>InchiKey:</b>            | QLNWXBAGRTUKKI-UHFFFAOYSA-N   |
| <b>Formula:</b>             | C8H9NO2   |
| <b>SMILES:</b>              | CC(=O)Nc1cccc(O)c1  |
| <b>Mol. weight [g/mol]:</b> | 151.16  |
| <b>CAS:</b>                 | 621-42-1  |

## Physical Properties

| Property code | Value   | Unit   | Source         |
|---------------|---------|--------|----------------|
| gf            | -65.26  | kJ/mol | Joback Method  |
| hf            | -208.34 | kJ/mol | Joback Method  |
| hfus          | 23.00   | kJ/mol | Joback Method  |
| hvap          | 61.87   | kJ/mol | Joback Method  |
| log10ws       | -1.22   |        | Crippen Method |
| logp          | 1.351   |        | Crippen Method |

|      |         |                      |                |
|------|---------|----------------------|----------------|
| mvol | 117.240 | ml/mol               | McGowan Method |
| pc   | 4890.21 | kPa                  | Joback Method  |
| tb   | 593.78  | K                    | Joback Method  |
| tc   | 827.84  | K                    | Joback Method  |
| tf   | 420.65  | K                    | Joback Method  |
| vc   | 0.383   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 280.17 | J/mol×K | 593.78          | Joback Method |
| cpg           | 290.67 | J/mol×K | 632.79          | Joback Method |
| cpg           | 300.36 | J/mol×K | 671.80          | Joback Method |
| cpg           | 309.33 | J/mol×K | 710.81          | Joback Method |
| cpg           | 317.67 | J/mol×K | 749.82          | Joback Method |
| cpg           | 325.46 | J/mol×K | 788.83          | Joback Method |
| cpg           | 332.79 | J/mol×K | 827.84          | Joback Method |

## Sources

|   |   |
|---|---|
| Crippen Method:   | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>                                 |
| Crippen Method:   | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| Partial molar volumes of some drug and pro-drug substances in 1-octanol | <a href="https://www.doi.org/10.1016/j.jct.2009.10.002">https://www.doi.org/10.1016/j.jct.2009.10.002</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=C621421&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C621421&amp;Units=SI</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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