# Acetamide, N-(2-hydroxyphenyl)-

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|---|---|
| **Other names:** | 2'-Hydroxyacetanilide |
| | 2-(Acetylamino)phenol |
| | 2-Acetaminophenol |
| | 2-Hydroxyacetanilide |
| | 2-Hydroxyanilid kyseliny octove |
| | 2-acetamidophenol |
| | Acet-o-aminofenol |
| | Acetanilide, 2'-hydroxy- |
| | N-(2-hydroxyphenyl)acetamide |
| | N-(2-hydroxyphenyl)ethanamide |
| | N-Acetyl-2-aminophenol |
| | N-Acetyl-o-aminophenol |
| | NSC 3989 |
| | Phenol, 2-acetamido- |
| | o-(Acetylamino)phenol |
| | o-Acetamidophenol |
| | o-Acetaminophenol |
| | o-Acetylaminofenol |
| | o-hydroxyacetanilide |
| **Inchi:** | InChI=1S/C8H9NO2/c1-6(10)9-7-4-2-3-5-8(7)11/h2-5,11H,1H3,(H,9,10) |
| **InchiKey:** | ADVGKWPZRIDURE-UHFFFAOYSA-N |
| **Formula:** | C8H9NO2 |
| **SMILES:** | CC(=O)Nc1ccccc1O |
| **Mol. weight [g/mol]:** | 151.16 |
| **CAS:** | 614-80-2 |

# 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 |
| ie | 7.01 ± 0.02 | eV | NIST Webbook |
| log10ws | -1.22 | | Crippen Method |
| logp | 1.351 | | Crippen Method |
| mcvol | 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 | 364.50 ± 0.20 | K | NIST Webbook |
| vc | 0.383 | m3/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 |
| cps | 182.40 | J/mol×K | 298.00 | NIST Webbook |
| hfust | 21.25 | kJ/mol | 364.50 | NIST Webbook |
| hfust | 21.25 | kJ/mol | 364.50 | NIST Webbook |
| hfust | 21.25 | kJ/mol | 364.50 | NIST Webbook |
| sfust | 58.30 | J/mol×K | 364.50 | NIST Webbook |

# Sources

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C614802&Units=SI

**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l

**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

**Partial molar volumes of some drug and pro-drug substances in 1-octanol at T = 298.15 K:** https://www.doi.org/10.1016/j.jct.2009.10.002

**Joback Method:** https://en.wikipedia.org/wiki/Joback_method

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772

# Legend

**cpg:** Ideal gas heat capacity

**cps:** Solid phase heat capacity

**gf:** Standard Gibbs free energy of formation

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|---|---|
| **hf:** | Enthalpy of formation at standard conditions |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hfust:** | Enthalpy of fusion at a given temperature |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **ie:** | Ionization energy |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **sfust:** | Entropy of fusion at a given temperature |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |