

# 2-Acetyl-1,4,5,6-tetrahydropyridine

|                             |                                                         |
|-----------------------------|---------------------------------------------------------|
| <b>Other names:</b>         | Ethanone, 1-(1,4,5,6-tetrahydro-2-pyridinyl)-           |
| <b>Inchi:</b>               | InChI=1S/C7H11NO/c1-6(9)7-4-2-3-5-8-7/h4,8H,2-3,5H2,1H3 |
| <b>InchiKey:</b>            | HRAOWRVFLSYJKN-UHFFFAOYSA-N                             |
| <b>Formula:</b>             | C7H11NO                                                 |
| <b>SMILES:</b>              | CC(=O)C1=CCCCN1                                         |
| <b>Mol. weight [g/mol]:</b> | 125.17                                                  |
| <b>CAS:</b>                 | 25343-57-1                                              |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 19.34   | kJ/mol               | Joback Method  |
| hf            | -141.61 | kJ/mol               | Joback Method  |
| hfus          | 16.67   | kJ/mol               | Joback Method  |
| hvap          | 46.37   | kJ/mol               | Joback Method  |
| log10ws       | -1.47   |                      | Crippen Method |
| logp          | 0.843   |                      | Crippen Method |
| mcvol         | 105.880 | ml/mol               | McGowan Method |
| pc            | 4200.18 | kPa                  | Joback Method  |
| rinpol        | 1017.00 |                      | NIST Webbook   |
| rinpol        | 1049.00 |                      | NIST Webbook   |
| rinpol        | 1018.00 |                      | NIST Webbook   |
| rinpol        | 1017.00 |                      | NIST Webbook   |
| rinpol        | 1017.00 |                      | NIST Webbook   |
| rinpol        | 1062.00 |                      | NIST Webbook   |
| rinpol        | 1061.00 |                      | NIST Webbook   |
| tb            | 490.34  | K                    | Joback Method  |
| tc            | 717.23  | K                    | Joback Method  |
| tf            | 348.51  | K                    | Joback Method  |
| vc            | 0.391   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 220.40 | J/mol×K | 490.34          | Joback Method |

|     |        |         |        |               |
|-----|--------|---------|--------|---------------|
| cpg | 233.90 | J/mol×K | 528.16 | Joback Method |
| cpg | 246.65 | J/mol×K | 565.97 | Joback Method |
| cpg | 258.67 | J/mol×K | 603.79 | Joback Method |
| cpg | 269.98 | J/mol×K | 641.60 | Joback Method |
| cpg | 280.60 | J/mol×K | 679.42 | Joback Method |
| cpg | 290.53 | J/mol×K | 717.23 | Joback Method |

## Sources

|                        |                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <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.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.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>                                         |
| <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=C25343571&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C25343571&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>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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