

# ACYCLOVIR

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other names:         | 2-Amino-1,9-dihydro-9-((2-hydroxyethoxy)methyl)-6H-purin-6-one<br>2-Amino-9-[(2-hydroxyethoxy)methyl]-1,9-dihydro-6H-purin-6-one<br>6H-Purin-6-one, 1,9-dihydro-2-amino-9-((2-hydroxyethoxy)methyl)-<br>6H-Purin-6-one, 2-amino-1,9-dihydro-9-[(2-hydroxyethoxy)methyl]-<br>9-(2-Hydroxyethoxymethyl)guanine<br>9-[(2-hydroxyethoxyl)methyl]guanine<br>ACV<br>Acicloftal<br>Aciclovir<br>Acyclo-V<br>Acycloguanosine<br>BW 248U<br>Cargosil<br>NSC 645011<br>Poviral<br>Vipral<br>Viorax<br>W-248-U<br>Wellcome-248U<br>Zovirax<br>Zyclir |
| Inchi:               | InChI=1S/C8H11N5O3/c9-8-11-6-5(7(15)12-8)10-3-13(6)4-16-2-1-14/h3,14H,1-2,4H2,(H                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| InchiKey:            | MKUXAQIIEYXACX-UHFFFAOYSA-N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Formula:             | C8H11N5O3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SMILES:              | Nc1nc2c(ncn2COCCO)c(=O)[nH]1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mol. weight [g/mol]: | 225.21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| log10ws       | -1.61   |        | Cheméo Relay (1.0) |
| logp          | -1.814  |        | Crippen Method     |
| mcvol         | 152.170 | ml/mol | McGowan Method     |
| tf            | 512.83  | K      | Cheméo Relay (1.0) |

# Temperature Dependent Properties

| Property code | Value | Unit   | Temperature [K] | Source       |
|---------------|-------|--------|-----------------|--------------|
| hfust         | 30.44 | kJ/mol | 528.20          | NIST Webbook |

## Sources

|                                                                                          |                                                                                                                                               |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Thermal and spectral characterization of a binary mixture (acyclovir and NIST Webbook)   | <a href="https://www.doi.org/10.1016/j.tca.2013.03.013">https://www.doi.org/10.1016/j.tca.2013.03.013</a>                                     |
| Fluocinonide acetone): Eutectic reaction and inclusion complexes with beta-cyclodextrin. | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C59277893&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C59277893&amp;Units=SI</a> |
| McGowan Method:                                                                          | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                         |
| Crippen Method:                                                                          | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                     |
| Crippen Method:                                                                          | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                             |
| Cheméo Relay (1.0):                                                                      |                                                                                                                                               |
| Cheméo Relay (1.0, beta):                                                                |                                                                                                                                               |

## Legend

|                 |                                           |
|-----------------|-------------------------------------------|
| <b>hfust:</b>   | Enthalpy of fusion at a given temperature |
| <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>tf:</b>      | Normal melting (fusion) point             |

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