

# 7-ACETAMINO-2,3-DIHYDRO-5-PHENYL-1H-1,4-B

|                      |                                                                                                                                                                          |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other names:         | 2H-1,4-Benzodiazepin-2-one, 7-acetamido-1,3-dihydro-5-phenyl-<br>N-(2-Oxo-5-phenyl-2,3-dihydro-1H-1,4-benzodiazepin-7-yl)acetamide<br>7-Acetamidonitrazepam<br>NSC 58777 |
| Inchi:               | InChI=1S/C17H15N3O2/c1-11(21)19-13-7-8-15-14(9-13)17(18-10-16(22)20-15)12-5-3-2                                                                                          |
| InchiKey:            | JHTJXLGLYZQIGI-UHFFFAOYSA-N                                                                                                                                              |
| Formula:             | C17H15N3O2                                                                                                                                                               |
| SMILES:              | CC(=O)Nc1ccc2c(c1)C(c1ccccc1)=NCC(=O)N2                                                                                                                                  |
| Mol. weight [g/mol]: | 293.33                                                                                                                                                                   |

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| hfus          | 41.72   | kJ/mol | Joback Method      |
| log10ws       | -3.17   |        | Cheméo Relay (1.0) |
| logp          | 2.434   |        | Crippen Method     |
| mcvol         | 220.790 | ml/mol | McGowan Method     |
| rinpol        | 3205.00 |        | NIST Webbook       |
| rinpol        | 3205.00 |        | NIST Webbook       |
| tf            | 513.51  | K      | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 694.13 | J/mol×K | 949.88          | Joback Method |
| cpg           | 705.50 | J/mol×K | 995.78          | Joback Method |
| cpg           | 714.84 | J/mol×K | 1041.68         | Joback Method |
| cpg           | 722.17 | J/mol×K | 1087.58         | Joback Method |
| cpg           | 727.51 | J/mol×K | 1133.48         | Joback Method |
| cpg           | 730.89 | J/mol×K | 1179.39         | Joback Method |
| cpg           | 732.31 | J/mol×K | 1225.29         | Joback Method |

# Sources

Cheméo Relay (1.0, beta):

NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=C4928034&Units=SI>

Joback Method: [https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

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

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

Crippen Method: [https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

Cheméo Relay (1.0):

## Legend

|                 |                                           |
|-----------------|-------------------------------------------|
| <b>cpg:</b>     | Ideal gas heat capacity                   |
| <b>hfus:</b>    | Enthalpy of fusion 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>rinpola:</b> | Non-polar retention indices               |
| <b>tf:</b>      | Normal melting (fusion) point             |

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