

# 2-Phenylbenzoxazole

|                      |                                                                     |
|----------------------|---------------------------------------------------------------------|
| Other names:         | 2-phenylbenzo[d]oxazole                                             |
| Inchi:               | InChI=1S/C13H9NO/c1-2-6-10(7-3-1)13-14-11-8-4-5-9-12(11)15-13/h1-9H |
| InchiKey:            | FIISKTXZUZBTRC-UHFFFAOYSA-N                                         |
| Formula:             | C13H9NO                                                             |
| SMILES:              | <chem>c1ccc(-c2nc3ccccc3o2)cc1</chem>                               |
| Mol. weight [g/mol]: | 195.22                                                              |

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| ie            | 8.48    | eV     | Cheméo Relay (1.0) |
| log10ws       | -4.22   |        | Cheméo Relay (1.0) |
| logp          | 3.495   |        | Crippen Method     |
| mcvol         | 147.200 | ml/mol | McGowan Method     |
| tb            | 592.25  | K      | Cheméo Relay (1.0) |
| tf            | 335.91  | K      | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value | Unit   | Temperature [K] | Source                                                                                |
|---------------|-------|--------|-----------------|---------------------------------------------------------------------------------------|
| hvapt         | 90.90 | kJ/mol | 298.15          | Thermochemical and conformational study of optical active phenylbenzazole derivatives |

## Sources

|                     |                                                                                                                       |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|
| 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):

Thermochemical and conformational  
study of optical active phenylbenzazole  
derivatives

<https://www.doi.org/10.1016/j.jct.2017.08.017>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C833501&Units=SI>

## Legend

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>hvapt:</b>   | Enthalpy of vaporization at a given temperature |
| <b>ie:</b>      | Ionization energy                               |
| <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>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tf:</b>      | Normal melting (fusion) point                   |

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