1-benzylpyrazole

Other names: 1-(phenylmethyl)-1H-pyrazole

1-benzyl-1H-pyrazole

1H-pyrazole, 1-(phenylmethyl)-

N-benzylpyrazole pyrazole, 1-benzyl-

InChl=1S/C10H10N2/c1-2-5-10(6-3-1)9-12-8-4-7-11-12/h1-8H,9H2

InchiKey: AKQAJYLKBCWJBV-UHFFFAOYSA-N

Formula: C10H10N2

SMILES: c1ccc(Cn2cccn2)cc1

Mol. weight [g/mol]: 158.20

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|--------|----------------|
| log10ws | -2.80 | | Crippen Method |
| logp | 1.931 | | Crippen Method |
| mcvol | 128.500 | ml/mol | McGowan Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|----------|------|-----------------|--|
| pvap | 1.47e-03 | kPa | | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods |

| pvap | 4.30e-03 | kPa | 310.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
|------|----------|-----|--------|--|--|
| pvap | 6.15e-03 | kPa | 314.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
| pvap | 8.82e-03 | kPa | 318.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
| pvap | 0.01 | kPa | 322.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |

| pvap | 0.02 | kPa | 326.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
|------|------|-----|--------|--|--|
| pvap | 0.02 | kPa | 326.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
| pvap | 0.02 | kPa | 330.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
| pvap | 0.03 | kPa | 334.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |

| pvap | 0.04 | kPa | 338.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
|------|------|-----|--------|--|--|
| pvap | 0.06 | kPa | 342.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
| pvap | 0.07 | kPa | 346.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
| pvap | 0.10 | kPa | 350.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |

| pvap | 0.12 | kPa | 354.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |
|------|------|-----|--------|--|--|
| pvap | 0.16 | kPa | 358.20 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods | |

Pressure Dependent Properties

| Property code | Value | Unit | Pressure [kPa] | Source |
|---------------|--------|------|----------------|--|
| tbp | 382.00 | K | 0.60 | Benchmark properties of pyrazole derivatives as a potential liquid organic hydrogen carrier: Evaluation of thermochemical data with complementary experimental and computational methods |

Sources

Crippen Method:

https://www.chemeo.com/doc/models/crippen_log10ws

Benchmark properties of pyrazole derivatives as a potential liquid organic McGreyen derived Evaluation of thermochemical data with complementary experimental and computational methods:

https://www.doi.org/10.1016/j.jct.2018.07.020

http://link.springer.com/article/10.1007/BF02311772

Legend

log10ws: Log10 of Water solubility in mol/llogp: Octanol/Water partition coefficientmcvol: McGowan's characteristic volume

pvap: Vapor pressure

tbp: Boiling point at given pressure

Latest version available from:

https://www.chemeo.com/cid/103-016-9/1-benzylpyrazole.pdf

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