# 2-(1-hydroxyethyl)-4,5-dihydrothiazole

**Inchi:** InChI=1S/C5H9NOS/c1-4(7)5-6-2-3-8-5/h4,7H,2-3H2,1H3
**InchiKey:** IOZOUUUQYPXUAJ-UHFFFAOYSA-N
**Formula:** C5H9NOS
**SMILES:** CC(O)C1=NCCS1
**Mol. weight [g/mol]:** 131.20

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 73.19 | kJ/mol | Joback Method |
| hf | -60.68 | kJ/mol | Joback Method |
| hfus | 11.76 | kJ/mol | Joback Method |
| hvap | 56.56 | kJ/mol | Joback Method |
| log10ws | -0.73 | | Crippen Method |
| logp | 0.512 | | Crippen Method |
| mcvol | 98.350 | ml/mol | McGowan Method |
| pc | 5335.72 | kPa | Joback Method |
| ripol | 1909.00 | | NIST Webbook |
| tb | 531.16 | K | Joback Method |
| tc | 752.58 | K | Joback Method |
| tf | 375.34 | K | Joback Method |
| vc | 0.351 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 225.22 | J/mol×K | 531.16 | Joback Method |
| cpg | 236.14 | J/mol×K | 568.06 | Joback Method |
| cpg | 246.41 | J/mol×K | 604.97 | Joback Method |
| cpg | 256.05 | J/mol×K | 641.87 | Joback Method |
| cpg | 265.06 | J/mol×K | 678.77 | Joback Method |
| cpg | 273.47 | J/mol×K | 715.68 | Joback Method |
| cpg | 281.30 | J/mol×K | 752.58 | Joback Method |

# Sources

| | |
|---|---|
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R334686&Units=SI |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **gf:** | Standard Gibbs free energy of formation |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |