

4,5-Tetramethylene-1,2-dithiol-3-thione

Inchi: InChI=1S/C7H8S3/c8-7-5-3-1-2-4-6(5)9-10-7/h1-4H2
InchiKey: WNPWNYMVKHOGRA-UHFFFAOYSA-N
Formula: C7H8S3
SMILES: S=c1ssc2c1CCCC2
Mol. weight [g/mol]: 188.33
CAS: 14085-34-8

Physical Properties

| Property code | Value | Unit | Source |
|---------------|-----------------|--------|----------------|
| chs | -5754.30 ± 8.40 | kJ/mol | NIST Webbook |
| hf | 156.00 | kJ/mol | NIST Webbook |
| hfs | 50.20 ± 8.40 | kJ/mol | NIST Webbook |
| hsub | 105.30 | kJ/mol | NIST Webbook |
| hsub | 105.30 | kJ/mol | NIST Webbook |
| hsub | 105.80 | kJ/mol | NIST Webbook |
| log10ws | -3.34 | | Crippen Method |
| logp | 3.418 | | Crippen Method |
| mcvol | 128.220 | ml/mol | McGowan Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|--------|--------|-----------------|--------------|
| hsubt | 101.60 | kJ/mol | 342.50 | NIST Webbook |

Sources

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
McGowan Method: <http://link.springer.com/article/10.1007/BF02311772>
NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=C14085348&Units=SI>
Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

Legend

| | |
|-----------------|--|
| chs: | Standard solid enthalpy of combustion |
| hf: | Enthalpy of formation at standard conditions |
| hfs: | Solid phase enthalpy of formation at standard conditions |
| hsub: | Enthalpy of sublimation at standard conditions |
| hsubt: | Enthalpy of sublimation at a given temperature |
| log10ws: | Log10 of Water solubility in mol/l |
| logp: | Octanol/Water partition coefficient |
| mcvol: | McGowan's characteristic volume |

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