

perfluoro-pentan ethioic acid S-methyl ester

Inchi: InChI=1S/C6H3F9OS/c1-17-2(16)3(7,8)4(9,10)5(11,12)6(13,14)15/h1H3
InchiKey: MPMHHWHCHAJXRK-UHFFFAOYSA-N
Formula: C6H3F9OS
SMILES: CSC(=O)C(F)(F)C(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 294.14

Physical Properties

| Property code | Value | Unit | Source |
|---------------|----------|---------|----------------|
| gf | -1838.09 | kJ/mol | Joback Method |
| hf | -2037.87 | kJ/mol | Joback Method |
| hfus | 15.09 | kJ/mol | Joback Method |
| hvap | 29.98 | kJ/mol | Joback Method |
| log10ws | -3.60 | | Crippen Method |
| logp | 3.344 | | Crippen Method |
| mcvol | 129.250 | ml/mol | McGowan Method |
| pc | 2395.87 | kPa | Joback Method |
| tb | 439.84 | K | Joback Method |
| tc | 601.15 | K | Joback Method |
| tf | 256.70 | K | Joback Method |
| vc | 0.549 | m3/kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|--------|---------|-----------------|---------------|
| cpg | 309.08 | J/molxK | 439.84 | Joback Method |
| cpg | 319.70 | J/molxK | 466.73 | Joback Method |
| cpg | 329.49 | J/molxK | 493.61 | Joback Method |
| cpg | 338.49 | J/molxK | 520.50 | Joback Method |
| cpg | 346.75 | J/molxK | 547.38 | Joback Method |
| cpg | 354.31 | J/molxK | 574.27 | Joback Method |
| cpg | 361.21 | J/molxK | 601.15 | Joback Method |

Sources

| | |
|------------------------|---|
| Crippen Method: | http://pubs.acs.org/doi/abs/10.1021/ci990307I |
| 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=R183770&Units=SI |

Legend

| | |
|-----------------|---|
| 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 |
| mccvol: | McGowan's characteristic volume |
| pc: | Critical Pressure |
| tb: | Normal Boiling Point Temperature |
| tc: | Critical Temperature |
| tf: | Normal melting (fusion) point |
| vc: | Critical Volume |

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