Mercaptosuccindihydrazide

Inchi: InChI=1S/C4H10N4O2S/c5-7-3(9)1-2(11)4(10)8-6/h2,11H,1,5-6H2,(H,7,9)(H,8,10)
InchiKey: RRRPKRWDEPHRSD-UHFFFAOYSA-N
Formula: C4H10N4O2S
SMILES: NNC(=O)CC(S)C(=O)NN
Mol. weight [g/mol]: 178.21
CAS: 687-57-0

Physical Properties

Property code	Value	Unit	Source
gf	63.59	kJ/mol	Joback Method
hf	-143.33	kJ/mol	Joback Method
hfus	30.43	kJ/mol	Joback Method
hvap	78.49	kJ/mol	Joback Method
log10ws	-0.46		Crippen Method
logp	-2.345		Crippen Method
mcvol	126.630	ml/mol	McGowan Method
pc	6259.01	kPa	Joback Method
tb	706.48	K	Joback Method
tc	943.30	K	Joback Method
tf	528.00	K	Joback Method
vc	0.448	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	328.65	J/mol×K	706.48	Joback Method
cpg	336.97	J/mol×K	745.95	Joback Method
cpg	344.61	J/mol×K	785.42	Joback Method
cpg	351.60	J/mol×K	824.89	Joback Method
cpg	357.96	J/mol×K	864.36	Joback Method
cpg	363.71	J/mol×K	903.83	Joback Method
cpg	368.89	J/mol×K	943.30	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=C687570&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
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume