N,n'-bis(alpha-mercaptopropionyl) hydrazine

Inchi: InChI=1S/C6H12N2O2S2/c1-3(11)5(9)7-8-6(10)4(2)12/h3-4,11-12H,1-2H3,(H,7,9)(H,8,10
InchiKey: UNVNBMGSZYEBPK-UHFFFAOYSA-N
Formula: C6H12N2O2S2
SMILES: CC(S)C(=O)NNC(=O)C(C)S
Mol. weight [g/mol]: 208.30
CAS: 868-78-0

Physical Properties

Property code	Value	Unit	Source
gf	-25.52	kJ/mol	Joback Method
hf	-218.99	kJ/mol	Joback Method
hfus	25.73	kJ/mol	Joback Method
hvap	68.01	kJ/mol	Joback Method
log10ws	-1.62		Crippen Method
logp	-0.230		Crippen Method
mcvol	151.200	ml/mol	McGowan Method
pc	4456.32	kPa	Joback Method
tb	669.60	K	Joback Method
tc	907.02	K	Joback Method
tf	405.48	K	Joback Method
vc	0.549	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	365.97	J/mol×K	669.60	Joback Method
cpg	376.69	J/mol×K	709.17	Joback Method
cpg	386.61	J/mol×K	748.74	Joback Method
cpg	395.74	J/mol×K	788.31	Joback Method
cpg	404.13	J/mol×K	827.88	Joback Method
cpg	411.79	J/mol×K	867.45	Joback Method
cpg	418.75	J/mol×K	907.02	Joback Method

Sources

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=C868780&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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