

N-acetyl-n'-mercaptoacetylhydrazine

Inchi:	InChI=1S/C4H8N2O2S/c1-3(7)5-6-4(8)2-9/h9H,2H2,1H3,(H,5,7)(H,6,8)
InchiKey:	LXWOWUDWPFACAJ-UHFFFAOYSA-N
Formula:	C4H8N2O2S
SMILES:	CC(=O)NNC(=O)CS
Mol. weight [g/mol]:	148.18
CAS:	689-85-0

Physical Properties

Property code	Value	Unit	Source
gf	-66.87	kJ/mol	Joback Method
hf	-205.63	kJ/mol	Joback Method
hfus	23.55	kJ/mol	Joback Method
hvap	57.60	kJ/mol	Joback Method
log10ws	-0.49		Crippen Method
logp	-0.917		Crippen Method
mcvol	106.670	ml/mol	McGowan Method
pc	5205.63	kPa	Joback Method
tb	561.86	K	Joback Method
tc	780.54	K	Joback Method
tf	376.48	K	Joback Method
vc	0.396	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	232.43	J/molxK	561.86	Joback Method
cpg	240.91	J/molxK	598.31	Joback Method
cpg	248.88	J/molxK	634.75	Joback Method
cpg	256.33	J/molxK	671.20	Joback Method
cpg	263.29	J/molxK	707.65	Joback Method
cpg	269.78	J/molxK	744.09	Joback Method
cpg	275.79	J/molxK	780.54	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C689850&Units=SI
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

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

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