Valeric acid, 5-hydroxy hydrazide

Inchi: InChI=1S/C5H12N2O2/c6-7-5(9)3-1-2-4-8/h8H,1-4,6H2,(H,7,9)
InchiKey: INQRVENAXALNOT-UHFFFAOYSA-N
Formula: C5H12N2O2
SMILES: NNC(=O)CCCCO
Mol. weight [g/mol]: 132.16
CAS: 2034-25-5

Physical Properties

Property code	Value	Unit	Source
gf	-118.68	kJ/mol	Joback Method
hf	-324.08	kJ/mol	Joback Method
hfus	24.69	kJ/mol	Joback Method
hvap	67.23	kJ/mol	Joback Method
log10ws	-0.57		Crippen Method
logp	-0.861		Crippen Method
mcvol	108.710	ml/mol	McGowan Method
pc	4608.87	kPa	Joback Method
tb	582.55	K	Joback Method
tc	767.80	K	Joback Method
tf	392.78	K	Joback Method
vc	0.405	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	273.67	J/mol×K	582.55	Joback Method
cpg	282.25	J/mol×K	613.43	Joback Method
cpg	290.40	J/mol×K	644.30	Joback Method
cpg	298.14	J/mol×K	675.18	Joback Method
cpg	305.48	J/mol×K	706.05	Joback Method
cpg	312.44	J/mol×K	736.93	Joback Method
cpg	319.02	J/mol×K	767.80	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=C2034255&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