Pentanamide, 5-hydroxy-

Other names: Valeramide, 5-hydroxy-
«delta»-Hydroxyvaleramide
Inchi: InChI=1S/C5H11NO2/c6-5(8)3-1-2-4-7/h7H,1-4H2,(H2,6,8)
InchiKey: UYOWQFWKDDJSLV-UHFFFAOYSA-N
Formula: C5H11NO2
SMILES: NC(=O)CCCCO
Mol. weight [g/mol]: 117.15
CAS: 29686-12-2

Physical Properties

Property code	Value	Unit	Source
gf	-208.07	kJ/mol	Joback Method
hf	-377.55	kJ/mol	Joback Method
hfus	19.59	kJ/mol	Joback Method
hvap	60.79	kJ/mol	Joback Method
log10ws	-0.39		Crippen Method
logp	-0.366		Crippen Method
mcvol	98.730	ml/mol	McGowan Method
pc	4528.58	kPa	Joback Method
tb	532.38	K	Joback Method
tc	715.91	K	Joback Method
tf	340.12	K	Joback Method
vc	0.369	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	231.63	J/mol×K	532.38	Joback Method
cpg	239.85	J/mol×K	562.97	Joback Method
cpg	247.69	J/mol×K	593.56	Joback Method
cpg	255.15	J/mol×K	624.15	Joback Method
cpg	262.27	J/mol×K	654.74	Joback Method
cpg	269.03	J/mol×K	685.33	Joback Method
cpg	275.46	J/mol×K	715.91	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C29686122&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