N-Carbamoylmethyl-N-phenylacetamide

Other names: Acetylglycine anilide
Inchi: InChI=1S/C10H12N2O2/c1-8(13)12(7-10(11)14)9-5-3-2-4-6-9/h2-6H,7H2,1H3,(H2,11,14)
InchiKey: PQLJCBHKTQHTCN-UHFFFAOYSA-N
Formula: C10H12N2O2
SMILES: CC(=O)N(CC(N)=O)c1ccccc1
Mol. weight [g/mol]: 192.21
CAS: 30764-27-3

Physical Properties

Property code	Value	Unit	Source
gf	65.12	kJ/mol	Joback Method
hf	-137.04	kJ/mol	Joback Method
hfus	27.11	kJ/mol	Joback Method
hvap	66.31	kJ/mol	Joback Method
log10ws	-1.20		Crippen Method
logp	0.525		Crippen Method
mcvol	151.100	ml/mol	McGowan Method
pc	3602.88	kPa	Joback Method
tb	647.59	K	Joback Method
tc	875.03	K	Joback Method
tf	444.47	K	Joback Method
vc	0.546	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	384.51	J/mol×K	647.59	Joback Method
cpg	397.01	J/mol×K	685.50	Joback Method
cpg	408.55	J/mol×K	723.40	Joback Method
cpg	419.18	J/mol×K	761.31	Joback Method
cpg	428.97	J/mol×K	799.22	Joback Method
cpg	437.95	J/mol×K	837.12	Joback Method
cpg	446.19	J/mol×K	875.03	Joback Method
hsubt	122.10	kJ/mol	363.50	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C30764273&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

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
hsubt:	Enthalpy of sublimation at a given temperature
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