Perfluoroglutaramide

Inchi: InChI=1S/C5H4F6N2O2/c6-3(7,1(12)14)5(10,11)4(8,9)2(13)15/h(H2,12,14)(H2,13,15)
InchiKey: WBOGURVAQVCKGX-UHFFFAOYSA-N
Formula: C5H4F6N2O2
SMILES: NC(=O)C(F)(F)C(F)(F)C(F)(F)C(N)=O
Mol. weight [g/mol]: 238.09
CAS: 507-68-6

Physical Properties

Property code	Value	Unit	Source
gf	-1294.06	kJ/mol	Joback Method
hf	-1507.02	kJ/mol	Joback Method
hfus	18.54	kJ/mol	Joback Method
hvap	52.71	kJ/mol	Joback Method
log10ws	-1.28		Crippen Method
logp	-0.137		Crippen Method
mcvol	115.030	ml/mol	McGowan Method
pc	3581.35	kPa	Joback Method
tb	552.53	K	Joback Method
tc	743.39	K	Joback Method
tf	423.29	K	Joback Method
vc	0.461	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	311.45	J/mol×K	552.53	Joback Method
cpg	319.43	J/mol×K	584.34	Joback Method
cpg	326.64	J/mol×K	616.15	Joback Method
cpg	333.14	J/mol×K	647.96	Joback Method
cpg	338.97	J/mol×K	679.77	Joback Method
cpg	344.21	J/mol×K	711.58	Joback Method
cpg	348.90	J/mol×K	743.39	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=C507686&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