Sarcosine, n-heptafluorobutyryl-, heptyl ester

Inchi: InChI=1S/C14H20F7NO3/c1-3-4-5-6-7-8-25-10(23)9-22(2)11(24)12(15,16)13(17,18)14(1
InchiKey: UTHMOGRSMJPFQD-UHFFFAOYSA-N
Formula: C14H20F7NO3
SMILES: CCCCCCCOC(=O)CN(C)C(=O)C(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 383.30

Physical Properties

Property code	Value	Unit	Source
gf	-1540.21	kJ/mol	Joback Method
hf	-2021.16	kJ/mol	Joback Method
hfus	38.74	kJ/mol	Joback Method
hvap	55.10	kJ/mol	Joback Method
log10ws	-4.18		Crippen Method
logp	3.791		Crippen Method
mcvol	239.500	ml/mol	McGowan Method
pc	1358.63	kPa	Joback Method
rinpol	1580.00		NIST Webbook
rinpol	1580.00		NIST Webbook
tb	647.52	K	Joback Method
tc	805.68	K	Joback Method
tf	413.49	K	Joback Method
vc	0.961	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	696.69	J/mol×K	647.52	Joback Method
cpg	710.64	J/mol×K	673.88	Joback Method
cpg	723.79	J/mol×K	700.24	Joback Method
cpg	736.18	J/mol×K	726.60	Joback Method
cpg	747.85	J/mol×K	752.96	Joback Method
cpg	758.85	J/mol×K	779.32	Joback Method
cpg	769.22	J/mol×K	805.68	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U321260&Units=SI

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume