Sarcosine, n-pentafluoropropionyl-, heptadecyl ester

Inchi: InChI=1S/C23H40F5NO3/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-32-20(30)19-29(
InchiKey: PXDKOQBLZXPDSQ-UHFFFAOYSA-N
Formula: C23H40F5NO3
SMILES: CCCCCCCCCCCCCCCCCCOC(=O)CN(C)C(=O)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 473.56

Physical Properties

Property code	Value	Unit	Source
gf	-1077.65	kJ/mol	Joback Method
hf	-1805.95	kJ/mol	Joback Method
hfus	63.30	kJ/mol	Joback Method
hvap	78.06	kJ/mol	Joback Method
log10ws	-7.63		Crippen Method
logp	7.057		Crippen Method
mcvol	362.770	ml/mol	McGowan Method
pc	813.53	kPa	Joback Method
rinpol	2524.00		NIST Webbook
rinpol	2524.00		NIST Webbook
tb	858.13	K	Joback Method
tc	1053.27	K	Joback Method
tf	511.32	K	Joback Method
vc	1.440	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1203.03	J/mol×K	858.13	Joback Method
cpg	1222.25	J/mol×K	890.65	Joback Method
cpg	1240.30	J/mol×K	923.18	Joback Method
cpg	1257.26	J/mol×K	955.70	Joback Method
cpg	1273.23	J/mol×K	988.23	Joback Method
cpg	1288.27	J/mol×K	1020.75	Joback Method
cpg	1302.48	J/mol×K	1053.27	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=U320945&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume