Sarcosine, n-heptafluorobutyryl-, pentadecyl ester

Inchi: InChI=1S/C22H36F7NO3/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-33-18(31)17-30(2)19(3

InchiKey: DYGVBQDDLBWYDB-UHFFFAOYSA-N

Formula: C22H36F7NO3

SMILES: CCCCCCCCCCCCCCCOC(=O)CN(C)C(=O)C(F)(F)C(F)(F)C(F)(F)F

Mol. weight [g/mol]: 495.51

Physical Properties

Property code	Value	Unit	Source
gf	-1472.85	kJ/mol	Joback Method
hf	-2186.28	kJ/mol	Joback Method
hfus	59.46	kJ/mol	Joback Method
hvap	72.90	kJ/mol	Joback Method
log10ws	-7.53		Crippen Method
logp	6.912		Crippen Method
mcvol	352.220	ml/mol	McGowan Method
pc	825.26	kPa	Joback Method
rinpol	2346.00		NIST Webbook
tb	830.56	K	Joback Method
tc	1018.52	K	Joback Method
tf	503.65	K	Joback Method
vc	1.409	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1156.75	J/mol×K	830.56	Joback Method
cpg	1174.83	J/mol×K	861.89	Joback Method
cpg	1191.82	J/mol×K	893.21	Joback Method
cpg	1207.82	J/mol×K	924.54	Joback Method
cpg	1222.91	J/mol×K	955.87	Joback Method
cpg	1237.18	J/mol×K	987.19	Joback Method
cpg	1250.71	J/mol×K	1018.52	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=U321266&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