Sarcosine, n-heptafluorobutyryl-, hexadecyl ester

Inchi: InChI=1S/C23H38F7NO3/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-34-19(32)18-31(2)2

InchiKey: VMUMAKKMBOLVPN-UHFFFAOYSA-N

Formula: C23H38F7NO3

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

Mol. weight [g/mol]: 509.54

Physical Properties

Property code	Value	Unit	Source
gf	-1464.43	kJ/mol	Joback Method
hf	-2206.92	kJ/mol	Joback Method
hfus	62.05	kJ/mol	Joback Method
hvap	75.13	kJ/mol	Joback Method
log10ws	-7.95		Crippen Method
logp	7.302		Crippen Method
mcvol	366.310	ml/mol	McGowan Method
pc	781.56	kPa	Joback Method
rinpol	2441.00		NIST Webbook
tb	853.44	K	Joback Method
tc	1048.82	K	Joback Method
tf	514.92	K	Joback Method
vc	1.464	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1218.00	J/mol×K	853.44	Joback Method
cpg	1236.84	J/mol×K	886.00	Joback Method
cpg	1254.52	J/mol×K	918.57	Joback Method
cpg	1271.16	J/mol×K	951.13	Joback Method
cpg	1286.85	J/mol×K	983.69	Joback Method
cpg	1301.70	J/mol×K	1016.26	Joback Method
cpg	1315.79	J/mol×K	1048.82	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=U321267&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