Sarcosine, n-pentafluoropropionyl-, octadecyl ester

Inchi: InChI=1S/C24H42F5NO3/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-33-21(31)20-

InchiKey: YJARPLQKDMUPSU-UHFFFAOYSA-N

Formula: C24H42F5NO3

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

Mol. weight [g/mol]: 487.59

Physical Properties

Property code	Value	Unit	Source
gf	-1069.23	kJ/mol	Joback Method
hf	-1826.59	kJ/mol	Joback Method
hfus	65.89	kJ/mol	Joback Method
hvap	80.29	kJ/mol	Joback Method
log10ws	-8.05		Crippen Method
logp	7.447		Crippen Method
mcvol	376.860	ml/mol	McGowan Method
pc	770.75	kPa	Joback Method
rinpol	2620.00		NIST Webbook
rinpol	2620.00		NIST Webbook
tb	881.01	K	Joback Method
tc	1084.13	K	Joback Method
tf	522.59	K	Joback Method
vc	1.496	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1265.38	J/mol×K	881.01	Joback Method
cpg	1285.37	J/mol×K	914.86	Joback Method
cpg	1304.12	J/mol×K	948.72	Joback Method
cpg	1321.72	J/mol×K	982.57	Joback Method
cpg	1338.27	J/mol×K	1016.42	Joback Method
cpg	1353.85	J/mol×K	1050.27	Joback Method
cpg	1368.56	J/mol×K	1084.13	Joback Method

Sources

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=U320946&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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

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