Sarcosine, N-(cyclopentylcarbonyl)-, tetradecyl ester

Inchi: InChI=1S/C23H43NO3/c1-3-4-5-6-7-8-9-10-11-12-13-16-19-27-22(25)20-24(2)23(26)21-
InchiKey: NMHRZOLHOSGKEV-UHFFFAOYSA-N
Formula: C23H43NO3
SMILES: CCCCCCCCCCCCCCOC(=O)CN(C)C(=O)C1CCCC1
Mol. weight [g/mol]: 381.59

Physical Properties

Property code	Value	Unit	Source
gf	-72.73	kJ/mol	Joback Method
hf	-747.42	kJ/mol	Joback Method
hfus	56.67	kJ/mol	Joback Method
hvap	84.99	kJ/mol	Joback Method
log10ws	-6.31		Crippen Method
logp	5.879		Crippen Method
mcvol	343.060	ml/mol	McGowan Method
pc	1014.89	kPa	Joback Method
rinpol	2922.00		NIST Webbook
tb	883.52	K	Joback Method
tc	1082.70	K	Joback Method
tf	514.43	K	Joback Method
vc	1.312	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1159.61	J/mol×K	883.52	Joback Method
cpg	1179.48	J/mol×K	916.72	Joback Method
cpg	1198.07	J/mol×K	949.91	Joback Method
cpg	1215.41	J/mol×K	983.11	Joback Method
cpg	1231.59	J/mol×K	1016.31	Joback Method
cpg	1246.64	J/mol×K	1049.50	Joback Method
cpg	1260.64	J/mol×K	1082.70	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=U321343&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