3-Cyclopentylpropionic acid, tetradecyl ester

Inchi: InChI=1S/C22H42O2/c1-2-3-4-5-6-7-8-9-10-11-12-15-20-24-22(23)19-18-21-16-13-14-17
InchiKey: GJINFHGVHVZJME-UHFFFAOYSA-N
Formula: C22H42O2
SMILES: CCCCCCCCCCCCCCCOC(=O)CCC1CCCC1
Mol. weight [g/mol]: 338.57

Physical Properties

Property code	Value	Unit	Source
gf	-63.01	kJ/mol	Joback Method
hf	-681.73	kJ/mol	Joback Method
hfus	49.46	kJ/mol	Joback Method
hvap	73.98	kJ/mol	Joback Method
log10ws	-7.55		Crippen Method
logp	7.201		Crippen Method
mcvol	317.420	ml/mol	McGowan Method
pc	1037.90	kPa	Joback Method
rinpol	2443.30		NIST Webbook
rinpol	2443.30		NIST Webbook
tb	794.33	K	Joback Method
tc	979.76	K	Joback Method
tf	420.76	K	Joback Method
vc	1.232	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1025.35	J/mol×K	794.33	Joback Method
cpg	1046.48	J/mol×K	825.24	Joback Method
cpg	1066.43	J/mol×K	856.14	Joback Method
cpg	1085.26	J/mol×K	887.05	Joback Method
cpg	1103.01	J/mol×K	917.95	Joback Method
cpg	1119.70	J/mol×K	948.86	Joback Method
cpg	1135.40	J/mol×K	979.76	Joback Method
dvisc	0.0016066	Pa×s	420.76	Joback Method

dvisc	0.0007110	Pa×s	483.02	Joback Method
dvisc	0.0003790	Pa×s	545.28	Joback Method
dvisc	0.0002298	Pa×s	607.54	Joback Method
dvisc	0.0001530	Pa×s	669.81	Joback Method
dvisc	0.0001091	Pa×s	732.07	Joback Method
dvisc	0.0000821	Pa×s	794.33	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=U292338&Units=SI

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
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