Succinic acid, di(2,2,3,3,4,4,5,5-octafluoropentyl) ester

Inchi: InChI=1S/C14H10F16O4/c15-7(16)11(23,24)13(27,28)9(19,20)3-33-5(31)1-2-6(32)34-4-1
InchiKey: BMUSAZHBEYJSHP-UHFFFAOYSA-N
Formula: C14H10F16O4
SMILES: O=C(CCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)F)OCC(F)(F)C(F)(F)C(F)(F)C(F)F
Mol. weight [g/mol]: 546.20

Physical Properties

Property code	Value	Unit	Source
gf	-3505.64	kJ/mol	Joback Method
hf	-4022.71	kJ/mol	Joback Method
hfus	35.34	kJ/mol	Joback Method
hvap	43.45	kJ/mol	Joback Method
log10ws	-5.92		Crippen Method
logp	5.195		Crippen Method
mcvol	251.320	ml/mol	McGowan Method
pc	1067.97	kPa	Joback Method
rinpol	1412.00		NIST Webbook
rinpol	1412.00		NIST Webbook
tb	640.36	K	Joback Method
tc	786.08	K	Joback Method
tf	385.82	K	Joback Method
vc	1.077	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	766.98	J/mol×K	640.36	Joback Method
cpg	778.79	J/mol×K	664.65	Joback Method
cpg	789.79	J/mol×K	688.93	Joback Method
cpg	800.02	J/mol×K	713.22	Joback Method
cpg	809.54	J/mol×K	737.51	Joback Method
cpg	818.40	J/mol×K	761.79	Joback Method
cpg	826.63	J/mol×K	786.08	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=U390701&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