Succinic acid, 2,2,3,3-tetrafluoropropyl heptadecyl ester

Inchi: InChI=1S/C24H42F4O4/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-19-31-21(29)17-18-22

InchiKey: HHSUKYBITWVYIG-UHFFFAOYSA-N

Formula: C24H42F4O4

SMILES: CCCCCCCCCCCCCCCCCCOC(=O)CCC(=O)OCC(F)(F)C(F)F

Mol. weight [g/mol]: 470.58

Physical Properties

Property code	Value	Unit	Source
gf	-1095.48	kJ/mol	Joback Method
hf	-1826.76	kJ/mol	Joback Method
hfus	64.87	kJ/mol	Joback Method
hvap	82.38	kJ/mol	Joback Method
log10ws	-8.22		Crippen Method
logp	7.625		Crippen Method
mcvol	370.980	ml/mol	McGowan Method
pc	778.94	kPa	Joback Method
rinpol	2652.00		NIST Webbook
rinpol	2652.00		NIST Webbook
tb	894.51	K	Joback Method
tc	1101.33	K	Joback Method
tf	494.34	K	Joback Method
vc	1.482	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1246.33	J/mol×K	894.51	Joback Method
cpg	1266.22	J/mol×K	928.98	Joback Method
cpg	1284.71	J/mol×K	963.45	Joback Method
cpg	1301.85	J/mol×K	997.92	Joback Method
cpg	1317.69	J/mol×K	1032.39	Joback Method
cpg	1332.31	J/mol×K	1066.86	Joback Method
cpg	1345.75	J/mol×K	1101.33	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U390888&Units=SI
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

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