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

Inchi: InChI=1S/C17H28F4O4/c1-3-4-5-6-7-8-9-13(2)25-15(23)11-10-14(22)24-12-17(20,21)16

InchiKey: RUEFEYAXPKCBKC-UHFFFAOYSA-N

Formula: C17H28F4O4

SMILES: CCCCCCCCC(C)OC(=O)CCC(=O)OCC(F)(F)C(F)F

Mol. weight [g/mol]: 372.40

Physical Properties

Property code	Value	Unit	Source
gf	-1156.86	kJ/mol	Joback Method
hf	-1687.56	kJ/mol	Joback Method
hfus	43.22	kJ/mol	Joback Method
hvap	66.41	kJ/mol	Joback Method
log10ws	-5.40		Crippen Method
logp	4.893		Crippen Method
mcvol	272.350	ml/mol	McGowan Method
pc	1186.60	kPa	Joback Method
rinpol	1847.00		NIST Webbook
rinpol	1847.00		NIST Webbook
tb	733.91	K	Joback Method
tc	904.22	K	Joback Method
tf	400.45	K	Joback Method
vc	1.085	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	824.58	J/mol×K	733.91	Joback Method
cpg	840.46	J/mol×K	762.29	Joback Method
cpg	855.50	J/mol×K	790.68	Joback Method
cpg	869.71	J/mol×K	819.06	Joback Method
cpg	883.11	J/mol×K	847.45	Joback Method
cpg	895.73	J/mol×K	875.83	Joback Method
cpg	907.59	J/mol×K	904.22	Joback Method

Sources

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=U390529&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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