Succinic acid, 2,2,3,3,4,4,5,5-octafluoropentyl 2-naphthyl ester

Inchi: InChI=1S/C19H14F8O4/c20-16(21)18(24,25)19(26,27)17(22,23)10-30-14(28)7-8-15(29)3

InchiKey: KTZRLBZMYMRAQH-UHFFFAOYSA-N

Formula: C19H14F8O4

SMILES: O=C(CCC(=O)Oc1ccc2ccccc2c1)OCC(F)(F)C(F)(F)C(F)(F)C(F)F

Mol. weight [g/mol]: 458.30

Physical Properties

Property code	Value	Unit	Source
gf	-1701.71	kJ/mol	Joback Method
hf	-2109.37	kJ/mol	Joback Method
hfus	40.09	kJ/mol	Joback Method
hvap	69.97	kJ/mol	Joback Method
log10ws	-6.64		Crippen Method
logp	5.240		Crippen Method
mcvol	264.390	ml/mol	McGowan Method
pc	1388.15	kPa	Joback Method
rinpol	2339.00		NIST Webbook
tb	821.37	K	Joback Method
tc	1015.80	K	Joback Method
tf	516.83	K	Joback Method
vc	1.067	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	810.42	J/mol×K	821.37	Joback Method
cpg	821.77	J/mol×K	853.77	Joback Method
cpg	832.28	J/mol×K	886.18	Joback Method
cpg	842.02	J/mol×K	918.58	Joback Method
cpg	851.10	J/mol×K	950.99	Joback Method
cpg	859.60	J/mol×K	983.39	Joback Method
cpg	867.60	J/mol×K	1015.80	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U389833&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

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

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