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

Inchi: InChI=1S/C20H16F8O4/c21-17(22)19(25,26)20(27,28)18(23,24)11-32-16(30)8-7-15(29)3

InchiKey: ODJPAMVQVWVHNK-UHFFFAOYSA-N

Formula: C20H16F8O4

SMILES: O=C(CCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)F)OCc1ccc2ccccc2c1

Mol. weight [g/mol]: 472.33

Physical Properties

Property code	Value	Unit	Source
gf	-1693.29	kJ/mol	Joback Method
hf	-2130.01	kJ/mol	Joback Method
hfus	42.68	kJ/mol	Joback Method
hvap	72.19	kJ/mol	Joback Method
log10ws	-6.90		Crippen Method
logp	5.377		Crippen Method
mcvol	278.480	ml/mol	McGowan Method
pc	1293.93	kPa	Joback Method
rinpol	2406.00		NIST Webbook
rinpol	2406.00		NIST Webbook
tb	844.25	K	Joback Method
tc	1040.15	K	Joback Method
tf	528.10	K	Joback Method
vc	1.123	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	866.21	J/mol×K	844.25	Joback Method
cpg	877.94	J/mol×K	876.90	Joback Method
cpg	888.83	J/mol×K	909.55	Joback Method
cpg	898.96	J/mol×K	942.20	Joback Method
cpg	908.44	J/mol×K	974.85	Joback Method
cpg	917.34	J/mol×K	1007.50	Joback Method
cpg	925.78	J/mol×K	1040.15	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=U389996&Units=SI

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