

Succinic acid, naphth-2-ylmethyl 2,2,3,3,3-pentafluoropropyl ester

Inchi: InChI=1S/C18H15F5O4/c19-17(20,18(21,22)23)11-27-16(25)8-7-15(24)26-10-12-5-6-13
InchiKey: ZFNPTQIXMYDOHE-UHFFFAOYSA-N
Formula: C18H15F5O4
SMILES: O=C(CCC(=O)OCC(F)(F)C(F)(F)F)OCc1ccc2ccccc2c1
Mol. weight [g/mol]: 390.30

Physical Properties

Property code	Value	Unit	Source
gf	-1126.10	kJ/mol	Joback Method
hf	-1486.37	kJ/mol	Joback Method
hfus	39.19	kJ/mol	Joback Method
hvap	71.88	kJ/mol	Joback Method
log10ws	-5.79		Crippen Method
logp	4.404		Crippen Method
mcvol	244.990	ml/mol	McGowan Method
pc	1625.91	kPa	Joback Method
rinpol	2232.00		NIST Webbook
rinpol	2232.00		NIST Webbook
tb	804.35	K	Joback Method
tc	1004.94	K	Joback Method
tf	516.37	K	Joback Method
vc	0.974	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	730.22	J/molxK	804.35	Joback Method
cpg	742.17	J/molxK	837.78	Joback Method
cpg	753.24	J/molxK	871.21	Joback Method
cpg	763.49	J/molxK	904.64	Joback Method
cpg	773.01	J/molxK	938.08	Joback Method
cpg	781.87	J/molxK	971.51	Joback Method
cpg	790.13	J/molxK	1004.94	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U390878&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I
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
rlnpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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