

Succinic acid, dodecyl 3,4,5-trifluorobenzyl ester

Inchi:	InChI=1S/C23H33F3O4/c1-2-3-4-5-6-7-8-9-10-11-14-29-21(27)12-13-22(28)30-17-18-15
InchiKey:	SPCQILXGGOHBP-UHFFFAOYSA-N
Formula:	C23H33F3O4
SMILES:	CCCCCCCCCCCCOC(=O)CCC(=O)OCc1cc(F)c(F)c(F)c1
Mol. weight [g/mol]:	430.50

Physical Properties

Property code	Value	Unit	Source
gf	-825.97	kJ/mol	Joback Method
hf	-1393.86	kJ/mol	Joback Method
hfus	63.01	kJ/mol	Joback Method
hvap	86.92	kJ/mol	Joback Method
log10ws	-7.77		Crippen Method
logp	6.391		Crippen Method
mvol	331.360	ml/mol	McGowan Method
pc	987.02	kPa	Joback Method
rinpol	2684.00		NIST Webbook
rinpol	2684.00		NIST Webbook
tb	917.65	K	Joback Method
tc	1123.68	K	Joback Method
tf	559.04	K	Joback Method
vc	1.317	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1078.10	J/molxK	917.65	Joback Method
cpg	1094.20	J/molxK	951.99	Joback Method
cpg	1108.99	J/molxK	986.33	Joback Method
cpg	1122.50	J/molxK	1020.67	Joback Method
cpg	1134.75	J/molxK	1055.01	Joback Method
cpg	1145.77	J/molxK	1089.34	Joback Method
cpg	1155.57	J/molxK	1123.68	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=U382196&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
hvp:	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
rinp:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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