

Phthalic acid, 3-fluorophenyl nonyl ester

Inchi: InChI=1S/C23H27FO4/c1-2-3-4-5-6-7-10-16-27-22(25)20-14-8-9-15-21(20)23(26)28-19-
InchiKey: QKCRNRUILPXFMR-UHFFFAOYSA-N
Formula: C23H27FO4
SMILES: CCCCCCCCCOC(=O)c1ccccc1C(=O)Oc1cccc(F)c1
Mol. weight [g/mol]: 386.46

Physical Properties

Property code	Value	Unit	Source
gf	-314.31	kJ/mol	Joback Method
hf	-753.64	kJ/mol	Joback Method
hfus	51.28	kJ/mol	Joback Method
hvap	90.16	kJ/mol	Joback Method
log10ws	-7.48		Crippen Method
logp	5.952		Crippen Method
mvol	304.060	ml/mol	McGowan Method
pc	1325.20	kPa	Joback Method
rinpol	2728.00		NIST Webbook
rinpol	2728.00		NIST Webbook
tb	940.81	K	Joback Method
tc	1159.53	K	Joback Method
tf	571.76	K	Joback Method
vc	1.173	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	962.99	J/molxK	940.81	Joback Method
cpg	976.89	J/molxK	977.26	Joback Method
cpg	989.48	J/molxK	1013.72	Joback Method
cpg	1000.79	J/molxK	1050.17	Joback Method
cpg	1010.85	J/molxK	1086.62	Joback Method
cpg	1019.72	J/molxK	1123.07	Joback Method
cpg	1027.43	J/molxK	1159.53	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U356672&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.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
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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