

4-Fluoro-2-trifluoromethylbenzoic acid, octyl ester

Inchi:	InChI=1S/C16H20F4O2/c1-2-3-4-5-6-7-10-22-15(21)13-9-8-12(17)11-14(13)16(18,19)20
InchiKey:	AWTGWEORPJXRIA-UHFFFAOYSA-N
Formula:	C16H20F4O2
SMILES:	CCCCCCCCOC(=O)c1ccc(F)cc1C(F)(F)F
Mol. weight [g/mol]:	320.32

Physical Properties

Property code	Value	Unit	Source
gf	-833.33	kJ/mol	Joback Method
hf	-1197.97	kJ/mol	Joback Method
hfus	38.15	kJ/mol	Joback Method
hvap	59.40	kJ/mol	Joback Method
log10ws	-6.08		Crippen Method
logp	5.362		Crippen Method
mvol	227.060	ml/mol	McGowan Method
pc	1516.39	kPa	Joback Method
rinpol	1717.00		NIST Webbook
rinpol	1717.00		NIST Webbook
tb	672.26	K	Joback Method
tc	850.60	K	Joback Method
tf	398.48	K	Joback Method
vc	0.908	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	633.67	J/molxK	672.26	Joback Method
cpg	648.54	J/molxK	701.98	Joback Method
cpg	662.59	J/molxK	731.71	Joback Method
cpg	675.86	J/molxK	761.43	Joback Method
cpg	688.38	J/molxK	791.15	Joback Method
cpg	700.16	J/molxK	820.88	Joback Method
cpg	711.25	J/molxK	850.60	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U338825&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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
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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