3-Fluoro-5-trifluoromethylbenzoic acid, 3-fluorophenyl ester

Inchi: InChI=1S/C14H7F5O2/c15-10-2-1-3-12(7-10)21-13(20)8-4-9(14(17,18)19)6-11(16)5-8/h1

InchiKey: WVCHRWJHDOUUDT-UHFFFAOYSA-N

Formula: C14H7F5O2

SMILES: O=C(Oc1cccc(F)c1)c1cc(F)cc(C(F)(F)F)c1

Mol. weight [g/mol]: 302.20

Physical Properties

Property code	Value	Unit	Source
gf	-942.20	kJ/mol	Joback Method
hf	-1127.74	kJ/mol	Joback Method
hfus	29.70	kJ/mol	Joback Method
hvap	57.07	kJ/mol	Joback Method
log10ws	-5.33		Crippen Method
logp	4.203		Crippen Method
mcvol	176.890	ml/mol	McGowan Method
pc	2256.81	kPa	Joback Method
rinpol	1531.00		NIST Webbook
tb	657.43	K	Joback Method
tc	864.10	K	Joback Method
tf	415.47	K	Joback Method
vc	0.707	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	456.51	J/mol×K	657.43	Joback Method
cpg	468.38	J/mol×K	691.87	Joback Method
cpg	479.35	J/mol×K	726.32	Joback Method
cpg	489.48	J/mol×K	760.76	Joback Method
cpg	498.79	J/mol×K	795.21	Joback Method
cpg	507.35	J/mol×K	829.65	Joback Method
cpg	515.17	J/mol×K	864.10	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=U357341&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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