p-Fluorobenzophenone

Other names:	4-Fluorobenzophenone
	Methanone, (4-fluorophenyl)phenyl-
	Benzophenone, 4-fluoro-
Inchi:	InChI=1S/C13H9FO/c14-12-8-6-11(7-9-12)13(15)10-4-2-1-3-5-10/h1-9H
InchiKey:	OGTSHGYHILFRHD-UHFFFAOYSA-N
Formula:	C13H9FO
SMILES:	O=C(c1ccccc1)c1ccc(F)cc1
Mol. weight [g/mol]:	200.21
CAS:	345-83-5

Physical Properties

Property code	Value	Unit	Source
ea	0.62 ± 0.10	eV	NIST Webbook
ea	0.73 ± 0.09	eV	NIST Webbook
ea	0.72 ± 0.05	eV	NIST Webbook
gf	-49.96	kJ/mol	Joback Method
hf	-158.75	kJ/mol	Joback Method
hfus	21.80	kJ/mol	Joback Method
hvap	55.67	kJ/mol	Joback Method
log10ws	-3.76		Crippen Method
logp	3.057		Crippen Method
mcvol	149.850	ml/mol	McGowan Method
pc	3082.99	kPa	Joback Method
tb	608.32	K	Joback Method
tc	849.01	K	Joback Method
tf	352.15	K	Joback Method
vc	0.572	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	349.63	J/mol×K	608.32	Joback Method
cpg	363.75	J/mol×K	648.43	Joback Method
cpg	376.74	J/mol×K	688.55	Joback Method

cpg	388.65	J/mol×K	728.66	Joback Method
cpg	399.56	J/mol×K	768.78	Joback Method
cpg	409.52	J/mol×K	808.89	Joback Method
cpg	418.60	J/mol×K	849.01	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=C345835&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
ea:	Electron affinity
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume