2,5-Difluorobenzophenone

Other names: Methanone, (2,5-difluorophenyl)phenyl-
Inchi: InChI=1S/C13H8F2O/c14-10-6-7-12(15)11(8-10)13(16)9-4-2-1-3-5-9/h1-8H
InchiKey: HSCUAAMDKDZZKG-UHFFFAOYSA-N
Formula: C13H8F2O
SMILES: O=C(c1ccccc1)c1cc(F)ccc1F
Mol. weight [g/mol]: 218.20
CAS: 85068-36-6

Physical Properties

Property code	Value	Unit	Source
gf	-254.40	kJ/mol	Joback Method
hf	-366.33	kJ/mol	Joback Method
hfus	24.49	kJ/mol	Joback Method
hvap	55.52	kJ/mol	Joback Method
log10ws	-4.09		Crippen Method
logp	3.196		Crippen Method
mcvol	151.620	ml/mol	McGowan Method
pc	2887.40	kPa	Joback Method
tb	612.57	K	Joback Method
tc	842.48	K	Joback Method
tf	365.26	K	Joback Method
vc	0.590	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	356.92	J/mol×K	612.57	Joback Method
cpg	370.06	J/mol×K	650.89	Joback Method
cpg	382.19	J/mol×K	689.21	Joback Method
cpg	393.39	J/mol×K	727.52	Joback Method
cpg	403.68	J/mol×K	765.84	Joback Method
cpg	413.13	J/mol×K	804.16	Joback Method
cpg	421.79	J/mol×K	842.48	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C85068366&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.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
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