2,4'-Dichlorobenzophenone

Other names: Methanone, (2-chlorophenyl)(4-chlorophenyl)-
Benzophenone, 2,4'-dichloro-
o,p'-Dichlorobenzophenone
o,p-Dichlorobenzophenone
Inchi: InChI=1S/C13H8Cl2O/c14-10-7-5-9(6-8-10)13(16)11-3-1-2-4-12(11)15/h1-8H
InchiKey: YXMYPHLWXBXNFF-UHFFFAOYSA-N
Formula: C13H8Cl2O
SMILES: O=C(c1ccc(Cl)cc1)c1ccccc1Cl
Mol. weight [g/mol]: 251.11
CAS: 85-29-0

Physical Properties

Property code	Value	Unit	Source
gf	111.36	kJ/mol	Joback Method
hf	-5.59	kJ/mol	Joback Method
hfus	26.72	kJ/mol	Joback Method
hvap	65.92	kJ/mol	Joback Method
log10ws	-4.80		Crippen Method
logp	4.224		Crippen Method
mcvol	172.560	ml/mol	McGowan Method
pc	2937.70	kPa	Joback Method
tb	688.89	K	Joback Method
tc	948.38	K	Joback Method
tf	338.80 ± 0.20	K	NIST Webbook
vc	0.651	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	387.24	J/mol×K	688.89	Joback Method
cpg	437.38	J/mol×K	905.13	Joback Method
cpg	429.27	J/mol×K	861.88	Joback Method
cpg	420.28	J/mol×K	818.64	Joback Method
cpg	410.32	J/mol×K	775.39	Joback Method

cpg	399.33	J/mol×K	732.14	Joback Method
cpg	444.68	J/mol×K	948.38	Joback Method
dvisc	0.0001857	Pa×s	688.89	Joback Method
dvisc	0.0002285	Pa×s	644.73	Joback Method
dvisc	0.0002899	Pa×s	600.57	Joback Method
dvisc	0.0003820	Pa×s	556.41	Joback Method
dvisc	0.0005279	Pa×s	512.24	Joback Method
dvisc	0.0007755	Pa×s	468.08	Joback Method
dvisc	0.0012341	Pa×s	423.92	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C85290&Units=SI

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
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

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