

Methanone, (3-chlorophenyl)(4-chlorophenyl)-

Other names:	Benzophenone, 3,4'-dichloro- 3,4'-Dichlorobenzophenone
Inchi:	InChI=1S/C13H8Cl2O/c14-11-6-4-9(5-7-11)13(16)10-2-1-3-12(15)8-10/h1-8H
InchiKey:	XFTXWDDQIXYAGY-UHFFFAOYSA-N
Formula:	C13H8Cl2O
SMILES:	O=C(c1ccc(Cl)cc1)c1cccc(Cl)c1
Mol. weight [g/mol]:	251.11
CAS:	7498-66-0

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
mvol	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	423.92	K	Joback Method
vc	0.651	m ³ /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	Paxs	688.89	Joback Method
dvisc	0.0002285	Paxs	644.73	Joback Method
dvisc	0.0002899	Paxs	600.57	Joback Method
dvisc	0.0003820	Paxs	556.41	Joback Method
dvisc	0.0005279	Paxs	512.24	Joback Method
dvisc	0.0007755	Paxs	468.08	Joback Method
dvisc	0.0012341	Paxs	423.92	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7498660&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.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
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvac:	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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