Cyclopentene, octachloro-

Other names:	Octachlorocyclopentene
	Perchlorocyclopentene
	NSC 4736
Inchi:	InChI=1S/C5Cl8/c6-1-2(7)4(10,11)5(12,13)3(1,8)9
InchiKey:	DMZRCHJVWAKCAX-UHFFFAOYSA-N
Formula:	C5Cl8
SMILES:	ClC1=C(Cl)C(Cl)(Cl)C(Cl)(Cl)C1(Cl)Cl
Mol. weight [g/mol]:	343.68
CAS:	706-78-5

Physical Properties

Property code	Value	Unit	Source
chl	-1979.60 ± 1.80	kJ/mol	NIST Webbook
gf	-88.86	kJ/mol	Joback Method
hf	-96.70 ± 3.30	kJ/mol	NIST Webbook
hfl	-176.80 ± 2.00	kJ/mol	NIST Webbook
hfus	19.91	kJ/mol	Joback Method
hvap	80.00 ± 1.00	kJ/mol	NIST Webbook
log10ws	-5.70		Crippen Method
logp	5.211		Crippen Method
mcvol	164.070	ml/mol	McGowan Method
pc	3306.75	kPa	Joback Method
rinpol	1618.80		NIST Webbook
rinpol	1601.80		NIST Webbook
tb	556.20	K	NIST Webbook
tc	912.76	K	Joback Method
tf	485.39	K	Joback Method
vc	0.626	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	258.35	J/mol×K	629.02	Joback Method
cpg	261.98	J/mol×K	676.31	Joback Method

cpg	265.84	J/mol×K	723.60	Joback Method
cpg	270.54	J/mol×K	770.89	Joback Method
cpg	276.68	J/mol×K	818.18	Joback Method
cpg	284.87	J/mol×K	865.47	Joback Method
cpg	295.70	J/mol×K	912.76	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=C706785&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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