Chlordane

Other names:

1,2,4,5,6,7,10,10-Octachloro-4,7,8,9-tetrahydro-4,7-methyleneindane
1,2,4,5,6,7,8,8-Octachloor-3a,4,7,7a-tetrahydro-4,7-endo-methano-indaan
1,2,4,5,6,7,8,8-Octachlor-3a,4,7,7a-tetrahydro-4,7-endo-methano-indan
1,2,4,5,6,7,8,8-Octachloro-2,3,3a,4,7,7a-hexahydro-4,7-methanoindene
1,2,4,5,6,7,8,8-Octachloro-3a,4,7,7a-tetrahydro-4,7-methanoindane
1,2,4,5,6,7,8,8-Octachloro-4,7-methano-3a,4,7,7a-tetrahydroindane
1,2,4,5,6,7,8,8-Ottochloro-3a,4,7,7a-tetraidro-4,7-endo-metano-indano
1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-4,7-methanoindan
4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-
Aspon-chlordane
CD 68
Chlordan
Chlorindan
Chlorodane
Chlortox
Clordan
Clordano
Cortilan-neu
Dichlorochlordene
Dowchlor
ENT-25,552-x
ENT-9,932
ENT-9932
HCS 3260
Kilex lindane
Latka 1068
M 140
NA 2762
NCI-C00099
OMS 1437
Octa-Klor
Octachlor
Octachloro-4,7-methanotetrahydroindane
Octachlorodihydrodicyclopentadiene
Oktaterr
Ortho-Klor
RCRA Waste number U036
SD 5532
Shell sd-5532

	Syndane
	Synklor
	Tat Chlor 4
	Termi-ded
	Topichlor 20
	Topiclor
	Topiclor 20
	Toxichlor
	Velsicol 1068
	chlordane , pur
Inchi:	InChI=1S/C10H6Cl8/c11-3-1-2-4(5(3)12)9(16)7(14)6(13)8(2,15)10(9,17)18/h2-5H,1H2
InchiKey:	BIWJNBZANLAXMG-UHFFFAOYSA-N
Formula:	C10H6Cl8
SMILES:	ClC1=C(Cl)C2(Cl)C3C(Cl)C(Cl)CC3C1(Cl)C2(Cl)Cl
Mol. weight [g/mol]:	409.78
CAS:	57-74-9

Physical Properties

Property code	Value	Unit	Source
gf	71.42	kJ/mol	Joback Method
hf	-164.21	kJ/mol	Joback Method
hfus	33.37	kJ/mol	Joback Method
hvap	69.77	kJ/mol	Joback Method
log10ws	-6.86		Estimated Solubility Method
logp	5.683		Crippen Method
mcvol	212.800	ml/mol	McGowan Method
pc	2379.54	kPa	Joback Method
rinpol	2073.00		NIST Webbook
rinpol	2063.00		NIST Webbook
rinpol	2042.00		NIST Webbook
rinpol	2036.00		NIST Webbook
rinpol	2018.00		NIST Webbook
rinpol	2020.00		NIST Webbook
ripol	2542.00		NIST Webbook
ripol	2510.00		NIST Webbook
ripol	2530.00		NIST Webbook
tb	743.29	K	Joback Method
tc	1021.42	K	Joback Method
tf	374.30 ± 0.20	K	NIST Webbook

vc	0.827	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	461.86	J/mol×K	743.29	Joback Method
cpg	473.85	J/mol×K	789.64	Joback Method
cpg	487.02	J/mol×K	836.00	Joback Method
cpg	502.09	J/mol×K	882.35	Joback Method
cpg	519.76	J/mol×K	928.71	Joback Method
cpg	540.74	J/mol×K	975.06	Joback Method
cpg	565.73	J/mol×K	1021.42	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C57749&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Estimated Solubility Method:	http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume