

# Acetaldehyde, bis(2-chloroethyl) acetal

<b>Other names:</b>	Di(2-chloroethyl)acetal Ethane, 1,1'-(ethylidene)bis(oxy)bis(2-chloro-1,1-Bis(2-chloroethoxy)ethane 1,1'-(Ethylidene)bis(oxy)bis(2-chloroethane) 2,2-Di-(2'-chloroethoxy)-ethane Ethane,-1,1-di(2-chloroethoxy) bis(2-chloroethyl)acetaldehyde acetal
<b>Inchi:</b>	InChI=1S/C6H12Cl2O2/c1-6(9-4-2-7)10-5-3-8/h6H,2-5H2,1H3
<b>InchiKey:</b>	KHNOWHUSVXGGLG-UHFFFAOYSA-N
<b>Formula:</b>	C6H12Cl2O2
<b>SMILES:</b>	CC(OCCCl)OCCCl
<b>Mol. weight [g/mol]:</b>	187.06
<b>CAS:</b>	14689-97-5

## Physical Properties

Property code	Value	Unit	Source
gf	-236.66	kJ/mol	Joback Method
hf	-468.37	kJ/mol	Joback Method
hfus	18.54	kJ/mol	Joback Method
hvap	42.15	kJ/mol	Joback Method
log10ws	-1.42		Crippen Method
logp	1.843		Crippen Method
mvol	131.620	ml/mol	McGowan Method
pc	2787.66	kPa	Joback Method
tb	455.94	K	Joback Method
tc	639.24	K	Joback Method
tf	246.68	K	Joback Method
vc	0.499	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	311.76	J/mol×K	639.24	Joback Method
cpg	303.39	J/mol×K	608.69	Joback Method

cpg	294.67	J/molxK	578.14	Joback Method
cpg	285.62	J/molxK	547.59	Joback Method
cpg	276.23	J/molxK	517.04	Joback Method
cpg	266.52	J/molxK	486.49	Joback Method
cpg	256.50	J/molxK	455.94	Joback Method
dvisc	0.0036333	Paxs	246.68	Joback Method
dvisc	0.0002230	Paxs	455.94	Joback Method
dvisc	0.0002928	Paxs	421.06	Joback Method
dvisc	0.0004039	Paxs	386.19	Joback Method
dvisc	0.0005940	Paxs	351.31	Joback Method
dvisc	0.0009509	Paxs	316.43	Joback Method
dvisc	0.0017107	Paxs	281.56	Joback Method
hvapt	59.40	kJ/mol	407.50	NIST Webbook

## Sources

<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C14689975&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C14689975&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point

**vc:** Critical Volume

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