

Ethane, 1,1-dichloro-2,2-diethoxy-

Other names:	Dichloroacetaldehyde diethyl acetal Dichloroacetal 1,1-dichloro-2,2-diethoxyethane
Inchi:	InChI=1S/C6H12Cl2O2/c1-3-9-6(5(7)8)10-4-2/h5-6H,3-4H2,1-2H3
InchiKey:	CDHLQZJRWKQATP-UHFFFAOYSA-N
Formula:	C6H12Cl2O2
SMILES:	CCOC(OCC)C(Cl)Cl
Mol. weight [g/mol]:	187.06
CAS:	619-33-0

Physical Properties

Property code	Value	Unit	Source
gf	-239.10	kJ/mol	Joback Method
hf	-473.65	kJ/mol	Joback Method
hfus	15.02	kJ/mol	Joback Method
hvap	41.76	kJ/mol	Joback Method
log10ws	-2.03		Crippen Method
logp	2.189		Crippen Method
mcvol	131.620	ml/mol	McGowan Method
pc	2811.36	kPa	Joback Method
tb	456.70	K	NIST Webbook
tc	642.91	K	Joback Method
tf	231.68	K	Joback Method
vc	0.493	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	256.65	J/mol×K	455.50	Joback Method
cpg	266.99	J/mol×K	486.73	Joback Method
cpg	276.98	J/mol×K	517.97	Joback Method
cpg	286.62	J/mol×K	549.20	Joback Method
cpg	295.91	J/mol×K	580.44	Joback Method
cpg	304.85	J/mol×K	611.67	Joback Method

cpg	313.41	J/molxK	642.91	Joback Method
dvisc	0.0055460	Paxs	231.68	Joback Method
dvisc	0.0022090	Paxs	268.98	Joback Method
dvisc	0.0011010	Paxs	306.29	Joback Method
dvisc	0.0006383	Paxs	343.59	Joback Method
dvisc	0.0004118	Paxs	380.89	Joback Method
dvisc	0.0002872	Paxs	418.20	Joback Method
dvisc	0.0002125	Paxs	455.50	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C619330&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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