Methane, oxybis[chloro-

Other names:	(Monochloromethyl) ether
	1,1'-Dichlorodimethyl ether
	BCME
	Bis(chloromethyl) ether
	Bis-CME
	Chloro(chloromethoxy) methane
	Chloromethyl ether
	Dichlordimethylaether
	Dichlorodimethyl ether
	Dichlorodimethyl ether, symmetrical
	Dimethyl-1,1'-dichloroether
	Ether, bis(chloromethyl)
	Methane, 1,1'-oxybis[1-chloro-
	Oxybis[chloromethane]
	Rcra waste number P016
	UN 2249
	s-Di(chloromethyl) ether
	sym-Dichloro-dimethyl ether
	sym-Dichloromethyl ether
	«alpha»,«alpha»'-Dichlorodimethyl ether
	Â«alphaÂ»,Â«alphaÂ»'-Dichlorodimethyl ether
Inchi:	InChI=1S/C2H4Cl2O/c3-1-5-2-4/h1-2H2
InchiKey:	HRQGCQVOJVTVLU-UHFFFAOYSA-N
Formula:	C2H4Cl2O
SMILES:	ClCOCCl
Mol. weight [g/mol]:	114.96
CAS:	542-88-1

Physical Properties

Property code	Value	Unit	Source
gf	-162.90	kJ/mol	Joback Method
hf	-248.31	kJ/mol	Joback Method
hfus	10.52	kJ/mol	Joback Method
hvap	31.23	kJ/mol	Joback Method
log10ws	-1.04		Crippen Method
logp	1.396		Crippen Method

mcvol	69.390	ml/mol	McGowan Method
pc	4438.52	kPa	Joback Method
rinpol	699.00		NIST Webbook
tb	378.20 ± 2.00	K	NIST Webbook
tb	378.70 ± 0.60	K	NIST Webbook
tb	377.20	K	NIST Webbook
tc	525.83	K	Joback Method
tf	194.37	K	Joback Method
vc	0.264	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	99.02	J/mol×K	342.44	Joback Method
cpg	102.82	J/mol×K	373.00	Joback Method
cpg	106.55	J/mol×K	403.57	Joback Method
cpg	110.18	J/mol×K	434.13	Joback Method
cpg	113.74	J/mol×K	464.70	Joback Method
cpg	117.20	J/mol×K	495.26	Joback Method
cpg	120.57	J/mol×K	525.83	Joback Method
dvisc	0.0027056	Pa×s	194.37	Joback Method
dvisc	0.0015478	Pa×s	219.05	Joback Method
dvisc	0.0009915	Pa×s	243.73	Joback Method
dvisc	0.0006894	Pa×s	268.40	Joback Method
dvisc	0.0005095	Pa×s	293.08	Joback Method
dvisc	0.0003947	Pa×s	317.76	Joback Method
dvisc	0.0003172	Pa×s	342.44	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.47645e+01
Coeff. B	-3.33809e+03
Coeff. C	-4.82010e+01
Temperature range (K), min.	278.78
Temperature range (K), max.	402.39

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=C542881&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume