Bis(2-chloro-1-methylethyl) ether

Other names:	(2-Chloro-1-methylethyl) ether
	2,2'-DICHLOROISOPROPYL ETHER
	2,2'-Dichlorodiisopropyl ether
	Bis(1-chloro-2-propyl) ether
	Bis(«beta»-chloroisopropyl) ether
	Bis(Â«betaÂ»-chloroisopropyl) ether
	DCIP
	DCIP (Nematocide)
	DICHLORODIISOPROPYL ETHER
	Dichloroisopropyl ether
	Ether, bis(2-chloro-1-methylethyl)
	NCI-C50044
	NSC 2849
	Propane, 2,2'-oxybis[1-chloro-
	«beta»,«beta»'-Dichlorodiisopropyl ether
	Â«betaÂ»,Â«betaÂ»'-Dichlorodiisopropyl ether
Inchi:	InChI=1S/C6H12Cl2O/c1-5(3-7)9-6(2)4-8/h5-6H,3-4H2,1-2H3
InchiKey:	QCFYJCYNJLBDRT-UHFFFAOYSA-N
Formula:	C6H12Cl2O
SMILES:	CC(CCl)OC(C)CCl
Mol. weight [g/mol]:	171.06
CAS:	108-60-1

Physical Properties

Property code	Value	Unit	Source
gf	-134.10	kJ/mol	Joback Method
hf	-341.43	kJ/mol	Joback Method
hfus	13.83	kJ/mol	Joback Method
hvap	39.35	kJ/mol	Joback Method
log10ws	-1.95		Crippen Method
logp	2.258		Crippen Method
mcvol	125.750	ml/mol	McGowan Method
pc	2862.74	kPa	Joback Method
rinpol	1023.00		NIST Webbook
rinpol	1029.00		NIST Webbook
rinpol	171.60		NIST Webbook
rinpol	171.60		NIST Webbook

ripol	1464.00		NIST Webbook
tb	460.25	K	NIST Webbook
tb	460.20	K	NIST Webbook
tc	621.21	K	Joback Method
tf	209.45	K	Joback Method
vc	0.475	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	234.53	J/mol×K	433.08	Joback Method
cpg	245.04	J/mol×K	464.43	Joback Method
cpg	255.15	J/mol×K	495.79	Joback Method
cpg	264.85	J/mol×K	527.14	Joback Method
cpg	274.14	J/mol×K	558.50	Joback Method
cpg	283.05	J/mol×K	589.85	Joback Method
cpg	291.56	J/mol×K	621.21	Joback Method
dvisc	0.0084256	Pa×s	209.45	Joback Method
dvisc	0.0030348	Pa×s	246.72	Joback Method
dvisc	0.0014291	Pa×s	283.99	Joback Method
dvisc	0.0008015	Pa×s	321.26	Joback Method
dvisc	0.0005069	Pa×s	358.54	Joback Method
dvisc	0.0003495	Pa×s	395.81	Joback Method
dvisc	0.0002569	Pa×s	433.08	Joback Method
hvapt	53.60	kJ/mol	379.00	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.19304e+01
Coeff. B	-3.36626e+03
Coeff. C	-5.49930e+01
Temperature range (K), min.	344.12
Temperature range (K), max.	563.57

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C108601&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
KDB:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1011
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
hvapt:	Enthalpy of vaporization at a given temperature
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume