

1,3-Dioxolane, 2-(chloromethyl)-

Other names:	Chloroacetaldehyde ethylene acetal 2-(Chloromethyl)-1,3-dioxolane
Inchi:	InChI=1S/C4H7ClO2/c5-3-4-6-1-2-7-4/h4H,1-3H2
InchiKey:	IKZOMJGRWIOEDP-UHFFFAOYSA-N
Formula:	C4H7ClO2
SMILES:	C1CC1OCCO1
Mol. weight [g/mol]:	122.55
CAS:	2568-30-1

Physical Properties

Property code	Value	Unit	Source
gf	-164.82	kJ/mol	Joback Method
hf	-345.15	kJ/mol	Joback Method
hfus	20.21	kJ/mol	Joback Method
hvap	38.16	kJ/mol	Joback Method
log10ws	-0.33		Crippen Method
logp	0.598		Crippen Method
mvol	80.340	ml/mol	McGowan Method
pc	4583.94	kPa	Joback Method
tb	430.70	K	NIST Webbook
tc	606.21	K	Joback Method
tf	228.80	K	Joback Method
vc	0.291	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	146.20	J/molxK	397.53	Joback Method
cpg	156.31	J/molxK	432.31	Joback Method
cpg	165.88	J/molxK	467.09	Joback Method
cpg	174.91	J/molxK	501.87	Joback Method
cpg	183.43	J/molxK	536.65	Joback Method
cpg	191.46	J/molxK	571.43	Joback Method
cpg	199.01	J/molxK	606.21	Joback Method

dvisc	0.0049320	Paxs	228.80	Joback Method
dvisc	0.0027474	Paxs	256.92	Joback Method
dvisc	0.0017177	Paxs	285.04	Joback Method
dvisc	0.0011685	Paxs	313.16	Joback Method
dvisc	0.0008470	Paxs	341.29	Joback Method
dvisc	0.0006447	Paxs	369.41	Joback Method
dvisc	0.0005101	Paxs	397.53	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=C2568301&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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