Benzene, 1-chloro-3-(dichloromethyl)-

Other names: 1-Chloro-3-(dichloromethyl)benzene
Inchi: InChI=1S/C7H5Cl3/c8-6-3-1-2-5(4-6)7(9)10/h1-4,7H
InchiKey: ACNQJGLSENYFQJ-UHFFFAOYSA-N
Formula: C7H5Cl3
SMILES: Clc1cccc(C(Cl)Cl)c1
Mol. weight [g/mol]: 195.47
CAS: 15145-69-4

Physical Properties

Property code	Value	Unit	Source
gf	72.61	kJ/mol	Joback Method
hf	-15.25	kJ/mol	Joback Method
hfus	16.61	kJ/mol	Joback Method
hvap	46.88	kJ/mol	Joback Method
log10ws	-3.80		Crippen Method
logp	3.816		Crippen Method
mcvol	122.450	ml/mol	McGowan Method
pc	3555.77	kPa	Joback Method
rinpol	1366.00		NIST Webbook
tb	503.07	K	Joback Method
tc	742.51	K	Joback Method
tf	282.35	K	Joback Method
vc	0.461	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	209.02	J/mol×K	503.07	Joback Method
cpg	218.39	J/mol×K	542.98	Joback Method
cpg	227.05	J/mol×K	582.88	Joback Method
cpg	235.03	J/mol×K	622.79	Joback Method
cpg	242.38	J/mol×K	662.70	Joback Method
cpg	249.12	J/mol×K	702.60	Joback Method
cpg	255.31	J/mol×K	742.51	Joback Method

dvisc	0.0029071	Pa×s	282.35	Joback Method
dvisc	0.0015736	Pa×s	319.14	Joback Method
dvisc	0.0009670	Pa×s	355.92	Joback Method
dvisc	0.0006510	Pa×s	392.71	Joback Method
dvisc	0.0004690	Pa×s	429.50	Joback Method
dvisc	0.0003558	Pa×s	466.28	Joback Method
dvisc	0.0002811	Pa×s	503.07	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C15145694&Units=SI
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

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