Cyclooctane, chloro-

Other names: chlorocyclooctane
Inchi: InChI=1S/C8H15Cl/c9-8-6-4-2-1-3-5-7-8/h8H,1-7H2
InchiKey: LDOZEEFSUYHNPM-UHFFFAOYSA-N
Formula: C8H15Cl
SMILES: ClC1CCCCCCC1
Mol. weight [g/mol]: 146.66
CAS: 1556-08-7

Physical Properties

Property code	Value	Unit	Source
gf	4.80	kJ/mol	Joback Method
hf	-182.19	kJ/mol	Joback Method
hfus	8.31	kJ/mol	Joback Method
hvap	38.56	kJ/mol	Joback Method
log10ws	-3.33		Crippen Method
logp	3.338		Crippen Method
mcvol	124.960	ml/mol	McGowan Method
pc	3199.16	kPa	Joback Method
rinpol	1197.00		NIST Webbook
rinpol	1197.00		NIST Webbook
rinpol	1197.00		NIST Webbook
tb	447.96	K	Joback Method
tc	673.76	K	Joback Method
tf	210.18	K	Joback Method
vc	0.450	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	243.52	J/mol×K	447.96	Joback Method
cpg	262.69	J/mol×K	485.59	Joback Method
cpg	280.85	J/mol×K	523.23	Joback Method
cpg	298.01	J/mol×K	560.86	Joback Method
cpg	314.18	J/mol×K	598.50	Joback Method

cpg	329.38	J/mol×K	636.13	Joback Method
cpg	343.62	J/mol×K	673.76	Joback Method
dvisc	0.0209596	Pa×s	210.18	Joback Method
dvisc	0.0054440	Pa×s	249.81	Joback Method
dvisc	0.0020454	Pa×s	289.44	Joback Method
dvisc	0.0009728	Pa×s	329.07	Joback Method
dvisc	0.0005428	Pa×s	368.70	Joback Method
dvisc	0.0003392	Pa×s	408.33	Joback Method
dvisc	0.0002304	Pa×s	447.96	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1556087&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