Benzene, (1-chloroethenyl)-

Other names: 1-Chloro-1-phenylethene
Inchi: InChI=1S/C8H7Cl/c1-7(9)8-5-3-2-4-6-8/h2-6H,1H2
InchiKey: XHAFIUUYXQFJEW-UHFFFAOYSA-N
Formula: C8H7Cl
SMILES: C=C(Cl)c1ccccc1
Mol. weight [g/mol]: 138.59
CAS: 618-34-8

Physical Properties

Property code	Value	Unit	Source
gf	196.25	kJ/mol	Joback Method
hf	127.98	kJ/mol	Joback Method
hfus	12.12	kJ/mol	Joback Method
hvap	39.47	kJ/mol	Joback Method
log10ws	-2.94		Crippen Method
logp	2.896		Crippen Method
mcvol	107.760	ml/mol	McGowan Method
pc	3695.46	kPa	Joback Method
tb	443.11	K	Joback Method
tc	669.55	K	Joback Method
tf	325.00 ± 5.00	K	NIST Webbook
vc	0.406	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	185.64	J/mol×K	443.11	Joback Method
cpg	197.29	J/mol×K	480.85	Joback Method
cpg	208.11	J/mol×K	518.59	Joback Method
cpg	218.16	J/mol×K	556.33	Joback Method
cpg	227.47	J/mol×K	594.07	Joback Method
cpg	236.09	J/mol×K	631.81	Joback Method
cpg	244.06	J/mol×K	669.55	Joback Method

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=C618348&Units=SI

Legend

cpg:	Ideal gas heat capacity
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