Cyclohexane, ethenyl-

Other names:	Cyclohexane, vinyl-
	Cyclohexylethylene
	Ethenylcyclohexane
	Vinylcyclohexane
	Cyclohexylethene
	1-Vinylcyclohexane
Inchi:	InChI=1S/C8H14/c1-2-8-6-4-3-5-7-8/h2,8H,1,3-7H2
InchiKey:	LDLDYFCCDKENPD-UHFFFAOYSA-N
Formula:	C8H14
SMILES:	C=CC1CCCCC1
Mol. weight [g/mol]:	110.20
CAS:	695-12-5

Physical Properties

Property code	Value	Unit	Source
chl	-5060.21 ± 0.75	kJ/mol	NIST Webbook
gf	128.77	kJ/mol	Joback Method
hf	-28.70	kJ/mol	Joback Method
hfl	-88.78 ± 0.88	kJ/mol	NIST Webbook
hfus	7.03	kJ/mol	Joback Method
hvap	39.70 ± 0.30	kJ/mol	NIST Webbook
hvap	39.70 ± 0.20	kJ/mol	NIST Webbook
ie	9.51	eV	NIST Webbook
log10ws	-2.68		Crippen Method
logp	2.753		Crippen Method
mcvol	108.420	ml/mol	McGowan Method
pc	3306.75	kPa	Joback Method
rinpol	830.00		NIST Webbook
rinpol	821.40		NIST Webbook
rinpol	838.50		NIST Webbook
rinpol	831.90		NIST Webbook
rinpol	830.00		NIST Webbook
rinpol	823.00		NIST Webbook
rinpol	826.70		NIST Webbook
rinpol	823.00		NIST Webbook
rinpol	823.00		NIST Webbook
rinpol	829.80		NIST Webbook

rinpol	839.00		NIST Webbook
rinpol	824.00		NIST Webbook
rinpol	818.00		NIST Webbook
rinpol	813.00		NIST Webbook
rinpol	818.00		NIST Webbook
rinpol	824.00		NIST Webbook
rinpol	813.00		NIST Webbook
rinpol	818.00		NIST Webbook
rinpol	829.00		NIST Webbook
rinpol	829.00		NIST Webbook
tb	400.20 ± 1.00	K	NIST Webbook
tb	401.20	K	NIST Webbook
tc	604.13	K	Joback Method
tf	185.54	K	Joback Method
vc	0.398	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	197.36	J/mol×K	398.67	Joback Method
cpg	214.31	J/mol×K	432.91	Joback Method
cpg	230.39	J/mol×K	467.16	Joback Method
cpg	245.63	J/mol×K	501.40	Joback Method
cpg	260.04	J/mol×K	535.64	Joback Method
cpg	273.67	J/mol×K	569.88	Joback Method
cpg	286.54	J/mol×K	604.13	Joback Method
dvisc	0.0069569	Pa×s	185.54	Joback Method
dvisc	0.0026309	Pa×s	221.06	Joback Method
dvisc	0.0013023	Pa×s	256.58	Joback Method
dvisc	0.0007649	Pa×s	292.11	Joback Method
dvisc	0.0005042	Pa×s	327.63	Joback Method
dvisc	0.0003606	Pa×s	363.15	Joback Method
dvisc	0.0002738	Pa×s	398.67	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C695125&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

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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