Cyclopropane,ethenyl-

Other names: Ethenylcyclopropane
Inchi: InChI=1S/C5H8/c1-2-5-3-4-5/h2,5H,1,3-4H2
InchiKey: YIWFBNMYFYINAD-UHFFFAOYSA-N
Formula: C5H8
SMILES: C=CC1CC1
Mol. weight [g/mol]: 68.12
CAS: 693-86-7

Physical Properties

Property code	Value	Unit	Source
affp	816.30	kJ/mol	NIST Webbook
basg	787.50	kJ/mol	NIST Webbook
chl	-3213.30 ± 0.80	kJ/mol	NIST Webbook
chl	-3010.00	kJ/mol	NIST Webbook
chl	-3233.00	kJ/mol	NIST Webbook
gf	139.81	kJ/mol	Joback Method
hf	127.00	kJ/mol	NIST Webbook
hf	131.20 ± 1.40	kJ/mol	NIST Webbook
hfl	102.50 ± 0.80	kJ/mol	NIST Webbook
hfus	5.56	kJ/mol	Joback Method
hvap	28.70 ± 1.30	kJ/mol	NIST Webbook
hvap	28.70	kJ/mol	NIST Webbook
ie	8.70	eV	NIST Webbook
ie	9.15	eV	NIST Webbook
ie	9.10	eV	NIST Webbook
ie	9.20	eV	NIST Webbook
log10ws	-1.42		Crippen Method
logp	1.582		Crippen Method
mcvol	66.150	ml/mol	McGowan Method
pc	4294.29	kPa	Joback Method
rinpol	515.60		NIST Webbook
rinpol	536.00		NIST Webbook
rinpol	536.00		NIST Webbook
tb	313.60 ± 0.30	K	NIST Webbook
tb	313.56 ± 0.30	K	NIST Webbook
tc	499.37	K	Joback Method
tf	160.55 ± 0.50	K	NIST Webbook

tf	160.33 ± 0.30	K	NIST Webbook
tf	160.70 ± 0.20	K	NIST Webbook
vc	0.254	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	147.61	J/mol×K	499.37	Joback Method
cpg	140.02	J/mol×K	469.01	Joback Method
cpg	131.95	J/mol×K	438.65	Joback Method
cpg	123.38	J/mol×K	408.29	Joback Method
cpg	114.27	J/mol×K	377.94	Joback Method
cpg	104.60	J/mol×K	347.58	Joback Method
cpg	94.35	J/mol×K	317.22	Joback Method
dvisc	0.0003809	Pa×s	162.29	Joback Method
dvisc	0.0002085	Pa×s	317.22	Joback Method
dvisc	0.0002205	Pa×s	291.40	Joback Method
dvisc	0.0002357	Pa×s	265.58	Joback Method
dvisc	0.0002557	Pa×s	239.75	Joback Method
dvisc	0.0002828	Pa×s	213.93	Joback Method
dvisc	0.0003216	Pa×s	188.11	Joback Method
hvapt	28.90	kJ/mol	299.50	NIST Webbook

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=C693867&Units=SI

Legend

affp: Proton affinity
basg: Gas basicity
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
hvapt:	Enthalpy of vaporization at a given temperature
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