

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	-3233.00	kJ/mol	NIST Webbook
chl	-3213.30 ± 0.80	kJ/mol	NIST Webbook
chl	-3010.00	kJ/mol	NIST Webbook
gf	139.81	kJ/mol	Joback Method
hf	131.20 ± 1.40	kJ/mol	NIST Webbook
hf	127.00	kJ/mol	NIST Webbook
hfl	102.50 ± 0.80	kJ/mol	NIST Webbook
hfus	5.56	kJ/mol	Joback Method
hvap	28.70	kJ/mol	NIST Webbook
hvap	28.70 ± 1.30	kJ/mol	NIST Webbook
ie	8.70	eV	NIST Webbook
ie	9.15	eV	NIST Webbook
ie	9.20	eV	NIST Webbook
ie	9.10	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	536.00		NIST Webbook
rinpol	536.00		NIST Webbook
rinpol	515.60		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	160.33 ± 0.30	K	NIST Webbook

tf	160.70 ± 0.20	K	NIST Webbook
tf	160.55 ± 0.50	K	NIST Webbook
vc	0.254	m ³ /kmol	Joback Method

Temperature Dependent Properties

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

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C693867&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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

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