Bicyclo[2.2.1]hept-2-ene, 2-methyl-

Other names:	2-Norbornene, 2-methyl-
	2-Methyl-2-norbornene
	2-Methylbicyclo[2.2.1]hept-2-ene
	2-Methylnorbornene
	2-Methylbicyclo(2.2.1)heptene
Inchi:	InChI=1S/C8H12/c1-6-4-7-2-3-8(6)5-7/h4,7-8H,2-3,5H2,1H3
InchiKey:	HTENSGOZPYEMCG-UHFFFAOYSA-N
Formula:	C8H12
SMILES:	CC1=CC2CCC1C2
Mol. weight [g/mol]:	108.18
CAS:	694-92-8

Physical Properties

Property code	Value	Unit	Source
affp	845.00	kJ/mol	NIST Webbook
basg	812.50	kJ/mol	NIST Webbook
chl	-4867.50 ± 1.70	kJ/mol	NIST Webbook
gf	146.21	kJ/mol	Joback Method
hf	-22.70	kJ/mol	Joback Method
hfl	4.40 ± 1.80	kJ/mol	NIST Webbook
hfus	11.48	kJ/mol	Joback Method
hvap	34.35	kJ/mol	Joback Method
ie	8.50	eV	NIST Webbook
ie	8.10	eV	NIST Webbook
log10ws	-2.33		Crippen Method
logp	2.363		Crippen Method
mcvol	97.560	ml/mol	McGowan Method
pc	3543.08	kPa	Joback Method
rinpol	1097.00		NIST Webbook
rinpol	1097.00		NIST Webbook
tb	391.00 ± 2.00	K	NIST Webbook
tc	609.36	K	Joback Method
tf	225.56	K	Joback Method
vc	0.376	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	189.08	J/mol×K	404.33	Joback Method
cpg	204.54	J/mol×K	438.50	Joback Method
cpg	219.03	J/mol×K	472.67	Joback Method
cpg	232.58	J/mol×K	506.84	Joback Method
cpg	245.27	J/mol×K	541.02	Joback Method
cpg	257.14	J/mol×K	575.19	Joback Method
cpg	268.25	J/mol×K	609.36	Joback Method
dvisc	0.0005626	Pa×s	225.56	Joback Method
dvisc	0.0005347	Pa×s	255.35	Joback Method
dvisc	0.0005136	Pa×s	285.15	Joback Method
dvisc	0.0004971	Pa×s	314.94	Joback Method
dvisc	0.0004838	Pa×s	344.74	Joback Method
dvisc	0.0004730	Pa×s	374.53	Joback Method
dvisc	0.0004639	Pa×s	404.33	Joback Method

Sources

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=C694928&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
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