Cyclopentane, methylene-

Other names:	Methylenecyclopentane
	1-Methylenecyclopentane
Inchi:	InChI=1S/C6H10/c1-6-4-2-3-5-6/h1-5H2
InchiKey:	NFJPEKRRHIYYES-UHFFFAOYSA-N
Formula:	C6H10
SMILES:	C=C1CCCC1
Mol. weight [g/mol]:	82.14
CAS:	1528-30-9

Physical Properties

Property code	Value	Unit	Source
affp	832.40	kJ/mol	NIST Webbook
basg	803.50	kJ/mol	NIST Webbook
chl	-3770.10 ± 0.79	kJ/mol	NIST Webbook
gf	96.98	kJ/mol	Joback Method
hf	10.20	kJ/mol	NIST Webbook
hfl	-20.20 ± 0.88	kJ/mol	NIST Webbook
hfus	3.00	kJ/mol	Joback Method
hvap	29.68	kJ/mol	Joback Method
ie	8.70 ± 0.05	eV	NIST Webbook
ie	9.05 ± 0.02	eV	NIST Webbook
ie	9.14	eV	NIST Webbook
ie	9.26 ± 0.05	eV	NIST Webbook
ie	8.55 ± 0.01	eV	NIST Webbook
ie	8.51 ± 0.01	eV	NIST Webbook
ie	8.94 ± 0.01	eV	NIST Webbook
ie	8.96 ± 0.02	eV	NIST Webbook
ie	7.20	eV	NIST Webbook
log10ws	-2.08		Crippen Method
logp	2.117		Crippen Method
mcvol	80.240	ml/mol	McGowan Method
pc	4098.62	kPa	Joback Method
rinpol	650.00		NIST Webbook
rinpol	654.00		NIST Webbook
rinpol	657.00		NIST Webbook
rinpol	650.00		NIST Webbook
rinpol	657.00		NIST Webbook

rinpol	654.00		NIST Webbook
rinpol	654.00		NIST Webbook
rinpol	657.00		NIST Webbook
rinpol	657.00		NIST Webbook
rinpol	654.00		NIST Webbook
tb	355.79	K	Joback Method
tc	553.33	K	Joback Method
tf	146.00 ± 0.15	K	NIST Webbook
tf	145.32 ± 0.50	K	NIST Webbook
vc	0.297	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	126.63	J/mol×K	355.79	Joback Method
cpg	138.59	J/mol×K	388.71	Joback Method
cpg	149.93	J/mol×K	421.64	Joback Method
cpg	160.70	J/mol×K	454.56	Joback Method
cpg	170.91	J/mol×K	487.48	Joback Method
cpg	180.58	J/mol×K	520.40	Joback Method
cpg	189.73	J/mol×K	553.33	Joback Method
dvisc	0.0028005	Pa×s	186.20	Joback Method
dvisc	0.0015005	Pa×s	214.46	Joback Method
dvisc	0.0009297	Pa×s	242.73	Joback Method
dvisc	0.0006366	Pa×s	271.00	Joback Method
dvisc	0.0004682	Pa×s	299.26	Joback Method
dvisc	0.0003631	Pa×s	327.52	Joback Method
dvisc	0.0002932	Pa×s	355.79	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=C1528309&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
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