Cyclopentane, ethylidene-

Other names: Ethylidenecyclopentane
Inchi: InChI=1S/C7H12/c1-2-7-5-3-4-6-7/h2H,3-6H2,1H3
InchiKey: VONKRKBGTZDZNV-UHFFFAOYSA-N
Formula: C7H12
SMILES: CC=C1CCCC1
Mol. weight [g/mol]: 96.17
CAS: 2146-37-4

Physical Properties

Property code	Value	Unit	Source
chl	-4412.82 ± 0.79	kJ/mol	NIST Webbook
gf	97.78	kJ/mol	Joback Method
hf	-20.00	kJ/mol	NIST Webbook
hfl	-56.82 ± 0.88	kJ/mol	NIST Webbook
hfus	7.07	kJ/mol	Joback Method
hvap	38.60 ± 0.30	kJ/mol	NIST Webbook
ie	8.51	eV	NIST Webbook
ie	8.49 ± 0.02	eV	NIST Webbook
log10ws	-2.50		Crippen Method
logp	2.507		Crippen Method
mcvol	94.330	ml/mol	McGowan Method
pc	3682.02	kPa	Joback Method
rinpol	772.00		NIST Webbook
rinpol	774.00		NIST Webbook
rinpol	768.00		NIST Webbook
rinpol	776.00		NIST Webbook
rinpol	763.00		NIST Webbook
rinpol	772.00		NIST Webbook
rinpol	766.90		NIST Webbook
rinpol	771.00		NIST Webbook
rinpol	770.30		NIST Webbook
tb	384.00 ± 1.50	K	NIST Webbook
tb	385.03 ± 0.30	K	NIST Webbook
tb	385.20 ± 1.00	K	NIST Webbook
tb	388.00 ± 6.00	K	NIST Webbook
tb	353.41 ± 0.20	K	NIST Webbook
tb	385.80 ± 1.00	K	NIST Webbook

tb	385.03 ± 0.40	K	NIST Webbook
tb	385.20 ± 3.00	K	NIST Webbook
tb	385.03 ± 0.30	K	NIST Webbook
tc	588.78	K	Joback Method
tf	146.55 ± 0.05	K	NIST Webbook
tf	146.57 ± 0.02	K	NIST Webbook
tf	146.57 ± 0.02	K	NIST Webbook
vc	0.352	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	235.01	J/mol×K	588.78	Joback Method
cpg	224.67	J/mol×K	555.01	Joback Method
cpg	213.70	J/mol×K	521.24	Joback Method
cpg	202.08	J/mol×K	487.47	Joback Method
cpg	189.76	J/mol×K	453.69	Joback Method
cpg	176.73	J/mol×K	419.92	Joback Method
cpg	162.94	J/mol×K	386.15	Joback Method
cpl	181.20	J/mol×K	298.15	NIST Webbook
dvisc	0.0003338	Pa×s	354.15	Joback Method
dvisc	0.0004441	Pa×s	322.15	Joback Method
dvisc	0.0006290	Pa×s	290.15	Joback Method
dvisc	0.0009714	Pa×s	258.15	Joback Method
dvisc	0.0016964	Pa×s	226.15	Joback Method
dvisc	0.0035601	Pa×s	194.15	Joback Method
dvisc	0.0002631	Pa×s	386.15	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2146374&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
cpl:	Liquid phase 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