4-Ethylcyclopentene

Inchi: InChI=1S/C7H12/c1-2-7-5-3-4-6-7/h3-4,7H,2,5-6H2,1H3
InchiKey: XWIUHPFMOVSNBE-UHFFFAOYSA-N
Formula: C7H12
SMILES: CCC1CC=CC1
Mol. weight [g/mol]: 96.17
CAS: 3742-38-9

Physical Properties

Property code	Value	Unit	Source
gf	74.57	kJ/mol	Joback Method
hf	-69.55	kJ/mol	Joback Method
hfus	9.04	kJ/mol	Joback Method
hvap	31.73	kJ/mol	Joback Method
log10ws	-2.26		Crippen Method
logp	2.363		Crippen Method
mcvol	94.330	ml/mol	McGowan Method
pc	3568.53	kPa	Joback Method
tb	371.40 ± 3.00	K	NIST Webbook
tc	570.05	K	Joback Method
tf	180.31	K	Joback Method
vc	0.354	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	236.41	J/mol×K	570.05	Joback Method
cpg	162.35	J/mol×K	374.00	Joback Method
cpg	176.38	J/mol×K	406.67	Joback Method
cpg	189.70	J/mol×K	439.35	Joback Method
cpg	202.34	J/mol×K	472.02	Joback Method
cpg	214.32	J/mol×K	504.70	Joback Method
cpg	225.67	J/mol×K	537.37	Joback Method
dvisc	0.0002734	Pa×s	374.00	Joback Method
dvisc	0.0026035	Pa×s	180.31	Joback Method

dvisc	0.0013445	Pa×s	212.59	Joback Method
dvisc	0.0008265	Pa×s	244.87	Joback Method
dvisc	0.0005690	Pa×s	277.15	Joback Method
dvisc	0.0004235	Pa×s	309.44	Joback Method
dvisc	0.0003333	Pa×s	341.72	Joback Method
hvapt	36.50	kJ/mol	361.50	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3742389&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
KDB:	https://www.cheric.org/files/research/kdb/mol/mol618.mol

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume