Pentalene, octahydro-

Other names:	Bicyclo[3.3.0]octane
	Octahydropentalene
Inchi:	InChI=1S/C8H14/c1-3-7-5-2-6-8(7)4-1/h7-8H,1-6H2
InchiKey:	AEBWATHAIVJLTA-UHFFFAOYSA-N
Formula:	C8H14
SMILES:	C1CC2CCCC2C1
Mol. weight [g/mol]:	110.20
CAS:	694-72-4

Physical Properties

Property code	Value	Unit	Source
gf	113.78	kJ/mol	Joback Method
hf	-75.17	kJ/mol	Joback Method
hfus	8.55	kJ/mol	Joback Method
hvap	33.57	kJ/mol	Joback Method
log10ws	-2.48		Crippen Method
logp	2.587		Crippen Method
mcvol	101.860	ml/mol	McGowan Method
pc	3560.02	kPa	Joback Method
rinpol	870.00		NIST Webbook
rinpol	870.00		NIST Webbook
tb	404.46	K	Joback Method
tc	614.38	K	Joback Method
tf	208.76	K	Joback Method
vc	0.382	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	198.70	J/mol×K	404.46	Joback Method
cpg	279.71	J/mol×K	579.39	Joback Method
cpg	265.55	J/mol×K	544.41	Joback Method
cpg	250.43	J/mol×K	509.42	Joback Method
cpg	234.29	J/mol×K	474.43	Joback Method

cpg	217.06	J/mol×K	439.45	Joback Method
cpg	292.95	J/mol×K	614.38	Joback Method
dvisc	0.0004754	Pa×s	404.46	Joback Method
dvisc	0.0005251	Pa×s	371.84	Joback Method
dvisc	0.0005912	Pa×s	339.23	Joback Method
dvisc	0.0006827	Pa×s	306.61	Joback Method
dvisc	0.0008158	Pa×s	273.99	Joback Method
dvisc	0.0010230	Pa×s	241.38	Joback Method
dvisc	0.0013767	Pa×s	208.76	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C694724&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

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
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