cis-Bicyclo[5.1.0]octane

Inchi: InChI=1S/C8H14/c1-2-4-7-6-8(7)5-3-1/h7-8H,1-6H2/t7-,8+
InchiKey: AKHMHYGTZRJYBS-OCAPTIKFSA-N
Formula: C8H14
SMILES: C1CCC2CC2CC1
Mol. weight [g/mol]: 110.20
CAS: 16526-90-2

Physical Properties

Property code	Value	Unit	Source
chl	-5099.30 ± 2.30	kJ/mol	NIST Webbook
gf	113.78	kJ/mol	Joback Method
hf	-6.10 ± 2.40	kJ/mol	NIST Webbook
hfl	-49.60 ± 2.30	kJ/mol	NIST Webbook
hfus	8.55	kJ/mol	Joback Method
hvap	43.50	kJ/mol	NIST Webbook
log10ws	-2.48		Crippen Method
logp	2.587		Crippen Method
mcvol	101.860	ml/mol	McGowan Method
pc	3560.02	kPa	Joback Method
rinpol	888.00		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	292.95	J/mol×K	614.38	Joback Method
cpg	198.70	J/mol×K	404.46	Joback Method
cpg	217.06	J/mol×K	439.45	Joback Method
cpg	234.29	J/mol×K	474.43	Joback Method
cpg	250.43	J/mol×K	509.42	Joback Method
cpg	265.55	J/mol×K	544.41	Joback Method

cpg	279.71	J/mol×K	579.39	Joback Method
dvisc	0.0004754	Pa×s	404.46	Joback Method
dvisc	0.0013767	Pa×s	208.76	Joback Method
dvisc	0.0010230	Pa×s	241.38	Joback Method
dvisc	0.0008158	Pa×s	273.99	Joback Method
dvisc	0.0006827	Pa×s	306.61	Joback Method
dvisc	0.0005912	Pa×s	339.23	Joback Method
dvisc	0.0005251	Pa×s	371.84	Joback Method
hvapt	43.60 ± 0.80	kJ/mol	309.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.62436e+01
Coeff. B	-4.82103e+03
Temperature range (K), min.	297.00
Temperature range (K), max.	441.00

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=C16526902&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

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
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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume