cis-Bicyclo[6.1.0]nonane

Inchi: InChI=1S/C9H16/c1-2-4-6-9-7-8(9)5-3-1/h8-9H,1-7H2/t8-,9+
InchiKey: FYECUAIUGWFPJF-DTORHVGOSA-N
Formula: C9H16
SMILES: C1CCCC2CC2CC1
Mol. weight [g/mol]: 124.22
CAS: 13757-43-2

Physical Properties

Property code	Value	Unit	Source
chl	-5758.23 ± 0.92	kJ/mol	NIST Webbook
chl	-5747.00 ± 3.00	kJ/mol	NIST Webbook
gf	110.10	kJ/mol	Joback Method
hf	-31.20 ± 2.90	kJ/mol	NIST Webbook
hf	-21.00	kJ/mol	NIST Webbook
hf	-32.00 ± 4.20	kJ/mol	NIST Webbook
hf	-20.80 ± 1.10	kJ/mol	NIST Webbook
hfl	-70.10 ± 1.00	kJ/mol	NIST Webbook
hfl	-70.00 ± 0.96	kJ/mol	NIST Webbook
hfl	-80.30 ± 3.70	kJ/mol	NIST Webbook
hfl	-81.00 ± 3.00	kJ/mol	NIST Webbook
hfus	9.04	kJ/mol	Joback Method
hvap	35.97	kJ/mol	Joback Method
log10ws	-2.90		Crippen Method
logp	2.977		Crippen Method
mcvol	115.950	ml/mol	McGowan Method
pc	3276.53	kPa	Joback Method
rinpol	996.00		NIST Webbook
rinpol	1003.00		NIST Webbook
tb	431.61	K	Joback Method
tc	647.88	K	Joback Method
tf	216.51	K	Joback Method
vc	0.429	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	240.94	J/mol×K	431.61	Joback Method
cpg	261.35	J/mol×K	467.66	Joback Method
cpg	280.52	J/mol×K	503.70	Joback Method
cpg	298.50	J/mol×K	539.75	Joback Method
cpg	315.35	J/mol×K	575.79	Joback Method
cpg	331.12	J/mol×K	611.84	Joback Method
cpg	345.88	J/mol×K	647.88	Joback Method
cpl	235.10	J/mol×K	315.00	NIST Webbook
dvisc	0.0026731	Pa×s	216.51	Joback Method
dvisc	0.0016168	Pa×s	252.36	Joback Method
dvisc	0.0011082	Pa×s	288.21	Joback Method
dvisc	0.0008258	Pa×s	324.06	Joback Method
dvisc	0.0006525	Pa×s	359.91	Joback Method
dvisc	0.0005380	Pa×s	395.76	Joback Method
dvisc	0.0004581	Pa×s	431.61	Joback Method
hvapt	50.40 ± 0.80	kJ/mol	328.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.65485e+01
Coeff. B	-5.23988e+03
Temperature range (K), min.	297.00
Temperature range (K), max.	466.30

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=C13757432&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
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
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