cis-Cyclononene

Other names: Cyclononene, (Z)-
(Z)-Cyclononene
Inchi: InChI=1S/C9H16/c1-2-4-6-8-9-7-5-3-1/h1-2H,3-9H2/b2-1-
InchiKey: BESIOWGPXPAVOS-UPHRSURJSA-N
Formula: C9H16
SMILES: C1=CCCCCCCC1
Mol. weight [g/mol]: 124.22
CAS: 933-21-1

Physical Properties

Property code	Value	Unit	Source
gf	50.72	kJ/mol	Joback Method
hf	-115.13	kJ/mol	Joback Method
hfus	4.75	kJ/mol	Joback Method
hvap	37.17	kJ/mol	Joback Method
ie	8.81 ± 0.15	eV	NIST Webbook
log10ws	-3.34		Crippen Method
logp	3.287		Crippen Method
mcvol	122.510	ml/mol	McGowan Method
pc	3329.68	kPa	Joback Method
rinpol	1029.00		NIST Webbook
rinpol	1029.00		NIST Webbook
rinpol	1029.00		NIST Webbook
rinpol	1023.60		NIST Webbook
tb	441.51	K	Joback Method
tc	669.04	K	Joback Method
tf	193.01	K	Joback Method
vc	0.435	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	239.29	J/mol×K	441.51	Joback Method
cpg	259.72	J/mol×K	479.43	Joback Method

cpg	279.05	J/mol×K	517.35	Joback Method
cpg	297.30	J/mol×K	555.28	Joback Method
cpg	314.48	J/mol×K	593.20	Joback Method
cpg	330.62	J/mol×K	631.12	Joback Method
cpg	345.72	J/mol×K	669.04	Joback Method
dvisc	0.0725595	Pa×s	193.01	Joback Method
dvisc	0.0108677	Pa×s	234.43	Joback Method
dvisc	0.0028786	Pa×s	275.84	Joback Method
dvisc	0.0010786	Pa×s	317.26	Joback Method
dvisc	0.0005070	Pa×s	358.68	Joback Method
dvisc	0.0002786	Pa×s	400.09	Joback Method
dvisc	0.0001713	Pa×s	441.51	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C933211&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
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