1,4-Cyclooctadiene, (Z,Z)-

Other names:	cis,cis-1,4-Cyclooctadiene
	1,4-Cyclooctadiene, (cis,cis)-
	c,c-Cycloocta-1,4-diene
	1,4-Cyclooctadiene
Inchi:	InChI=1S/C8H12/c1-2-4-6-8-7-5-3-1/h1-2,5,7H,3-4,6,8H2/b2-1-,7-5-
InchiKey:	DNZZPKYSGRTNGK-PQZOIKATSA-N
Formula:	C8H12
SMILES:	C1=CCCCC=CC1
Mol. weight [g/mol]:	108.18
CAS:	16327-22-3

Physical Properties

Property code	Value	Unit	Source
gf	84.36	kJ/mol	Joback Method
hf	-30.55	kJ/mol	Joback Method
hfus	5.48	kJ/mol	Joback Method
hvap	35.07	kJ/mol	Joback Method
log10ws	-2.77		Crippen Method
logp	2.673		Crippen Method
mcvol	104.120	ml/mol	McGowan Method
pc	3782.33	kPa	Joback Method
rinpol	882.00		NIST Webbook
rinpol	895.00		NIST Webbook
rinpol	895.00		NIST Webbook
rinpol	895.00		NIST Webbook
rinpol	909.50		NIST Webbook
tb	413.52	K	Joback Method
tc	637.21	K	Joback Method
tf	186.02	K	Joback Method
vc	0.373	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	183.96	J/mol×K	413.52	Joback Method
cpg	258.65	J/mol×K	599.93	Joback Method
cpg	245.48	J/mol×K	562.65	Joback Method
cpg	231.45	J/mol×K	525.37	Joback Method
cpg	216.53	J/mol×K	488.08	Joback Method
cpg	200.71	J/mol×K	450.80	Joback Method
cpg	270.98	J/mol×K	637.21	Joback Method
dvisc	0.0002081	Pa×s	413.52	Joback Method
dvisc	0.0003129	Pa×s	375.60	Joback Method
dvisc	0.0005156	Pa×s	337.69	Joback Method
dvisc	0.0009642	Pa×s	299.77	Joback Method
dvisc	0.0021612	Pa×s	261.85	Joback Method
dvisc	0.0063666	Pa×s	223.94	Joback Method
dvisc	0.0291355	Pa×s	186.02	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C16327223&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

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