1,5-Cyclooctadiene, (E,Z)-

Other names:	cis,trans-1,5-Cyclooctadiene
	(E),(Z)-1,5-Cyclooctadiene
	(1Z,5E)-Cyclooctadiene
Inchi:	InChI=1S/C8H12/c1-2-4-6-8-7-5-3-1/h1-2,7-8H,3-6H2/b2-1-,8-7+
InchiKey:	VYXHVRARDIDEHS-CDTWYVJESA-N
Formula:	C8H12
SMILES:	C1=CCCC=CCC1
Mol. weight [g/mol]:	108.18
CAS:	5259-71-2

Physical Properties

Property code	Value	Unit	Source
gf	84.36	kJ/mol	Joback Method
hf	156.00	kJ/mol	NIST Webbook
hf	162.00	kJ/mol	NIST Webbook
hf	158.00	kJ/mol	NIST Webbook
hfus	5.48	kJ/mol	Joback Method
hvap	35.07	kJ/mol	Joback Method
ie	8.20	eV	NIST Webbook
ie	8.70	eV	NIST Webbook
log10ws	-2.77		Crippen Method
logp	2.673		Crippen Method
mcvol	104.120	ml/mol	McGowan Method
pc	3782.33	kPa	Joback Method
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	200.71	J/mol×K	450.80	Joback Method

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

Sources

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=C5259712&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume