Cyclooctene, 4-methyl

Inchi: InChI=1S/C10H18/c1-10-8-6-4-2-3-5-7-9-10/h4,6,10H,2-3,5,7-9H2,1H3/b6-4-
InchiKey: BELJAPRIQWPZGK-XQRVVYSFSA-N
Formula: C10H18
SMILES: CC1CC=CCCCCC1
Mol. weight [g/mol]: 138.25

Physical Properties

Property code	Value	Unit	Source
gf	51.43	kJ/mol	Joback Method
hf	-156.11	kJ/mol	Joback Method
hfus	8.41	kJ/mol	Joback Method
hvap	39.09	kJ/mol	Joback Method
log10ws	-3.52		Crippen Method
logp	3.533		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2884.30	kPa	Joback Method
rinpol	963.00		NIST Webbook
rinpol	963.00		NIST Webbook
tb	459.72	K	Joback Method
tc	683.54	K	Joback Method
tf	200.04	K	Joback Method
vc	0.490	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	284.40	J/mol×K	459.72	Joback Method
cpg	306.15	J/mol×K	497.02	Joback Method
cpg	326.79	J/mol×K	534.33	Joback Method
cpg	346.32	J/mol×K	571.63	Joback Method
cpg	364.75	J/mol×K	608.93	Joback Method
cpg	382.09	J/mol×K	646.24	Joback Method
cpg	398.35	J/mol×K	683.54	Joback Method
dvisc	0.0357385	Pa×s	200.04	Joback Method

dvisc	0.0064779	Pa×s	243.32	Joback Method
dvisc	0.0019668	Pa×s	286.60	Joback Method
dvisc	0.0008164	Pa×s	329.88	Joback Method
dvisc	0.0004156	Pa×s	373.16	Joback Method
dvisc	0.0002434	Pa×s	416.44	Joback Method
dvisc	0.0001577	Pa×s	459.72	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R132980&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
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