Cycloundecene(E)

Other names:	(E)-Cycloundecene
	trans-Cycloundecene
	t-Cycloundecene
Inchi:	InChI=1S/C11H20/c1-2-4-6-8-10-11-9-7-5-3-1/h1-2H,3-11H2/b2-1+
InchiKey:	GMUVJAZTJOCSND-OWOJBTEDSA-N
Formula:	C11H20
SMILES:	C1=CCCCCCCCCC1
Mol. weight [g/mol]:	152.28
CAS:	13151-60-5

Physical Properties

Property code	Value	Unit	Source
gf	43.36	kJ/mol	Joback Method
hf	-168.73	kJ/mol	Joback Method
hfus	5.73	kJ/mol	Joback Method
hvap	41.97	kJ/mol	Joback Method
ie	8.73 ± 0.15	eV	NIST Webbook
log10ws	-4.18		Crippen Method
logp	4.067		Crippen Method
mcvol	150.690	ml/mol	McGowan Method
pc	2844.44	kPa	Joback Method
rinpol	1201.80		NIST Webbook
rinpol	1214.00		NIST Webbook
rinpol	1214.00		NIST Webbook
rinpol	1214.00		NIST Webbook
rinpol	1201.80		NIST Webbook
tb	495.81	K	Joback Method
tc	734.15	K	Joback Method
tf	208.51	K	Joback Method
vc	0.531	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	332.50	J/mol×K	495.81	Joback Method
cpg	357.22	J/mol×K	535.53	Joback Method
cpg	380.53	J/mol×K	575.26	Joback Method
cpg	402.43	J/mol×K	614.98	Joback Method
cpg	422.93	J/mol×K	654.70	Joback Method
cpg	442.04	J/mol×K	694.42	Joback Method
cpg	459.75	J/mol×K	734.15	Joback Method
dvisc	0.1549257	Pa×s	208.51	Joback Method
dvisc	0.0139329	Pa×s	256.39	Joback Method
dvisc	0.0026742	Pa×s	304.28	Joback Method
dvisc	0.0008041	Pa×s	352.16	Joback Method
dvisc	0.0003223	Pa×s	400.04	Joback Method
dvisc	0.0001571	Pa×s	447.93	Joback Method
dvisc	0.0000880	Pa×s	495.81	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C13151605&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
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