

trans-Cyclodecene, 1-methyl-

Other names:	(E)-Cyclodecene, 1-methyl
Inchi:	InChI=1S/C11H20/c1-11-9-7-5-3-2-4-6-8-10-11/h9H,2-8,10H2,1H3/b11-9+
InchiKey:	AAZWWRDLCYIVAB-PKQBQFBNSA-N
Formula:	C11H20
SMILES:	CC1=CCCCCCCCC1
Mol. weight [g/mol]:	152.28

Physical Properties

Property code	Value	Unit	Source
gf	45.83	kJ/mol	Joback Method
hf	-174.04	kJ/mol	Joback Method
hfus	7.44	kJ/mol	Joback Method
hvap	42.46	kJ/mol	Joback Method
log10ws	-4.18		Crippen Method
logp	4.067		Crippen Method
mvol	150.690	ml/mol	McGowan Method
pc	2726.86	kPa	Joback Method
rinpol	1200.00		NIST Webbook
rinpol	1197.00		NIST Webbook
tb	496.52	K	Joback Method
tc	727.05	K	Joback Method
tf	224.55	K	Joback Method
vc	0.539	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	333.31	J/mol×K	496.52	Joback Method
cpg	435.83	J/mol×K	688.63	Joback Method
cpg	417.77	J/mol×K	650.21	Joback Method
cpg	398.49	J/mol×K	611.79	Joback Method
cpg	378.00	J/mol×K	573.36	Joback Method
cpg	356.27	J/mol×K	534.94	Joback Method
cpg	452.68	J/mol×K	727.05	Joback Method

dvisc	0.0001025	Paxs	496.52	Joback Method
dvisc	0.0001673	Paxs	451.19	Joback Method
dvisc	0.0003050	Paxs	405.86	Joback Method
dvisc	0.0006463	Paxs	360.53	Joback Method
dvisc	0.0017000	Paxs	315.21	Joback Method
dvisc	0.0061880	Paxs	269.88	Joback Method
dvisc	0.0379461	Paxs	224.55	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R133676&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

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