Cyclododecene, 1-methyl-

Other names:	1-Methyl-1-cyclododecene
	1-Methylcyclododecene
Inchi:	InChI=1S/C13H24/c1-13-11-9-7-5-3-2-4-6-8-10-12-13/h11H,2-10,12H2,1H3
InchiKey:	YWYIHWJAVXCTFB-UHFFFAOYSA-N
Formula:	C13H24
SMILES:	CC1=CCCCCCCCCCC1
Mol. weight [g/mol]:	180.33
CAS:	23070-53-3

Physical Properties

Property code	Value	Unit	Source
gf	38.47	kJ/mol	Joback Method
hf	-227.64	kJ/mol	Joback Method
hfus	8.42	kJ/mol	Joback Method
hvap	47.26	kJ/mol	Joback Method
log10ws	-5.01		Crippen Method
logp	4.847		Crippen Method
mcvol	178.870	ml/mol	McGowan Method
pc	2363.37	kPa	Joback Method
rinpol	1382.00		NIST Webbook
rinpol	1392.00		NIST Webbook
rinpol	1392.00		NIST Webbook
tb	550.82	K	Joback Method
tc	790.09	K	Joback Method
tf	240.05	K	Joback Method
vc	0.635	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	436.55	J/mol×K	550.82	Joback Method
cpg	463.22	J/mol×K	590.70	Joback Method
cpg	488.33	J/mol×K	630.58	Joback Method
cpg	511.85	J/mol×K	670.46	Joback Method

cpg	533.78	J/mol×K	710.33	Joback Method
cpg	554.12	J/mol×K	750.21	Joback Method
cpg	572.86	J/mol×K	790.09	Joback Method
dvisc	0.0588073	Pa×s	240.05	Joback Method
dvisc	0.0062150	Pa×s	291.85	Joback Method
dvisc	0.0012932	Pa×s	343.64	Joback Method
dvisc	0.0004060	Pa×s	395.43	Joback Method
dvisc	0.0001667	Pa×s	447.23	Joback Method
dvisc	0.0000823	Pa×s	499.02	Joback Method
dvisc	0.0000464	Pa×s	550.82	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C23070533&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

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