1,2-Dimethyl cyclopropene

Other names: Cyclopropene, 1,2-dimethyl-
Inchi: InChI=1S/C5H8/c1-4-3-5(4)2/h3H2,1-2H3
InchiKey: QWKHRBFLFYXNDY-UHFFFAOYSA-N
Formula: C5H8
SMILES: CC1=C(C)C1
Mol. weight [g/mol]: 68.12
CAS: 14309-32-1

Physical Properties

Property code	Value	Unit	Source
gf	70.38	kJ/mol	Joback Method
hf	-18.55	kJ/mol	Joback Method
hfus	6.21	kJ/mol	Joback Method
hvap	28.56	kJ/mol	Joback Method
log10ws	-1.66		Crippen Method
logp	1.727		Crippen Method
mcvol	66.150	ml/mol	McGowan Method
pc	4277.45	kPa	Joback Method
rinpol	539.00		NIST Webbook
rinpol	539.00		NIST Webbook
tb	312.00 ± 1.00	K	NIST Webbook
tc	519.15	K	Joback Method
tf	194.09	K	Joback Method
vc	0.260	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	102.16	J/mol×K	334.33	Joback Method
cpg	110.33	J/mol×K	365.13	Joback Method
cpg	118.06	J/mol×K	395.94	Joback Method
cpg	125.37	J/mol×K	426.74	Joback Method
cpg	132.28	J/mol×K	457.54	Joback Method
cpg	138.81	J/mol×K	488.34	Joback Method

cpg	144.98	J/mol×K	519.15	Joback Method
dvisc	0.0004219	Pa×s	194.09	Joback Method
dvisc	0.0003544	Pa×s	217.46	Joback Method
dvisc	0.0003079	Pa×s	240.84	Joback Method
dvisc	0.0002743	Pa×s	264.21	Joback Method
dvisc	0.0002490	Pa×s	287.58	Joback Method
dvisc	0.0002293	Pa×s	310.96	Joback Method
dvisc	0.0002137	Pa×s	334.33	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14309321&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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