trans-1,2-Dimethylcyclopropane

Other names: Cyclopropane, 1,2-dimethyl-, trans-
t-1,2-Dimethylcyclopropane
Cyclopropane, 1,2-dimethyl-, (1R-trans)-
Inchi: InChI=1S/C5H10/c1-4-3-5(4)2/h4-5H,3H2,1-2H3/t4-,5-/m0/s1
InchiKey: VKJLDXGFBJBTRQ-WHFBIAKZSA-N
Formula: C5H10
SMILES: CC1CC1C
Mol. weight [g/mol]: 70.13
CAS: 20520-64-3

Physical Properties

Property code	Value	Unit	Source
gf	44.26	kJ/mol	Joback Method
hf	-94.07	kJ/mol	Joback Method
hfus	7.91	kJ/mol	Joback Method
hvap	26.33	kJ/mol	Joback Method
log10ws	-1.33		Crippen Method
logp	1.662		Crippen Method
mcvol	70.450	ml/mol	McGowan Method
pc	3901.37	kPa	Joback Method
rinpol	480.00		NIST Webbook
rinpol	480.00		NIST Webbook
rinpol	515.80		NIST Webbook
rinpol	480.00		NIST Webbook
rinpol	481.00		NIST Webbook
rinpol	479.00		NIST Webbook
rinpol	479.00		NIST Webbook
rinpol	488.00		NIST Webbook
rinpol	480.00		NIST Webbook
rinpol	480.00		NIST Webbook
rinpol	481.00		NIST Webbook
rinpol	479.00		NIST Webbook
rinpol	480.00		NIST Webbook
rinpol	481.00		NIST Webbook
rinpol	480.00		NIST Webbook
rinpol	480.00		NIST Webbook
rinpol	479.00		NIST Webbook

rinpol	480.00		NIST Webbook
rinpol	490.00		NIST Webbook
tb	315.87	K	Joback Method
tc	493.17	K	Joback Method
tf	159.81	K	Joback Method
vc	0.272	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	107.14	J/mol×K	315.87	Joback Method
cpg	118.05	J/mol×K	345.42	Joback Method
cpg	128.46	J/mol×K	374.97	Joback Method
cpg	138.38	J/mol×K	404.52	Joback Method
cpg	147.84	J/mol×K	434.07	Joback Method
cpg	156.84	J/mol×K	463.62	Joback Method
cpg	165.41	J/mol×K	493.17	Joback Method
dvisc	0.0001888	Pa×s	159.81	Joback Method
dvisc	0.0001859	Pa×s	185.82	Joback Method
dvisc	0.0001837	Pa×s	211.83	Joback Method
dvisc	0.0001821	Pa×s	237.84	Joback Method
dvisc	0.0001807	Pa×s	263.85	Joback Method
dvisc	0.0001797	Pa×s	289.86	Joback Method
dvisc	0.0001788	Pa×s	315.87	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C20520643&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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