Cyclopentane, 1-methyl-2-(2-propenyl)-, trans-

Other names: trans-1-Allyl-2-Methylcyclopentane
Inchi: InChI=1S/C9H16/c1-3-5-9-7-4-6-8(9)2/h3,8-9H,1,4-7H2,2H3/t8-,9-/m1/s1
InchiKey: JUGUHFNYFLSPAJ-RKDXNWHRSA-N
Formula: C9H16
SMILES: C=CCC1CCCC1C
Mol. weight [g/mol]: 124.22
CAS: 50746-53-7

Physical Properties

Property code	Value	Unit	Source
gf	141.58	kJ/mol	Joback Method
hf	-63.52	kJ/mol	Joback Method
hfus	12.79	kJ/mol	Joback Method
hvap	34.91	kJ/mol	Joback Method
log10ws	-2.85		Crippen Method
logp	2.999		Crippen Method
mcvol	122.510	ml/mol	McGowan Method
pc	2790.61	kPa	Joback Method
tb	412.61	K	Joback Method
tc	607.46	K	Joback Method
tf	196.09	K	Joback Method
vc	0.461	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	239.98	J/mol×K	412.61	Joback Method
cpg	257.25	J/mol×K	445.08	Joback Method
cpg	273.69	J/mol×K	477.56	Joback Method
cpg	289.33	J/mol×K	510.03	Joback Method
cpg	304.18	J/mol×K	542.51	Joback Method
cpg	318.28	J/mol×K	574.98	Joback Method
cpg	331.65	J/mol×K	607.46	Joback Method
dvisc	0.0022075	Pa×s	196.09	Joback Method

dvisc	0.0012125	Pa×s	232.18	Joback Method
dvisc	0.0007825	Pa×s	268.26	Joback Method
dvisc	0.0005602	Pa×s	304.35	Joback Method
dvisc	0.0004306	Pa×s	340.44	Joback Method
dvisc	0.0003480	Pa×s	376.52	Joback Method
dvisc	0.0002920	Pa×s	412.61	Joback Method

Sources

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=C50746537&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume