

trans-3,4-dimethylcyclopentene

Inchi:	InChI=1S/C7H12/c1-6-4-3-5-7(6)2/h3-4,6-7H,5H2,1-2H3
InchiKey:	JOVGLRSLWFSVNB-RNFRBKRXSA-N
Formula:	C7H12
SMILES:	CC1C=CCC1C
Mol. weight [g/mol]:	96.17
CAS:	53225-40-4

Physical Properties

Property code	Value	Unit	Source
gf	66.86	kJ/mol	Joback Method
hf	-89.89	kJ/mol	Joback Method
hfus	10.11	kJ/mol	Joback Method
hvap	31.42	kJ/mol	Joback Method
log10ws	-2.02		Crippen Method
logp	2.219		Crippen Method
mcvol	94.330	ml/mol	McGowan Method
pc	3431.89	kPa	Joback Method
tb	369.33	K	Joback Method
tc	564.73	K	Joback Method
tf	176.07	K	Joback Method
vc	0.353	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	162.58	J/mol×K	369.33	Joback Method
cpg	176.79	J/mol×K	401.90	Joback Method
cpg	190.33	J/mol×K	434.46	Joback Method
cpg	203.23	J/mol×K	467.03	Joback Method
cpg	215.51	J/mol×K	499.60	Joback Method
cpg	227.19	J/mol×K	532.16	Joback Method
cpg	238.28	J/mol×K	564.73	Joback Method
dvisc	0.0012019	Pa×s	176.07	Joback Method
dvisc	0.0007499	Pa×s	208.28	Joback Method

dvisc	0.0005309	Pa×s	240.49	Joback Method
dvisc	0.0004078	Pa×s	272.70	Joback Method
dvisc	0.0003312	Pa×s	304.91	Joback Method
dvisc	0.0002799	Pa×s	337.12	Joback Method
dvisc	0.0002436	Pa×s	369.33	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
KDB:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=625
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C53225404&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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