Cyclopentane, (3-methylbutyl)-

Other names:	Cyclopentane, isopentyl- (3-Methylbutyl)cyclopentane
Inchi:	InChI=1S/C10H20/c1-9(2)7-8-10-5-3-4-6-10/h9-10H,3-8H2,1-2H3
InchiKey:	SAVJAOISDXUPNK-UHFFFAOYSA-N
Formula:	C10H20
SMILES:	CC(C)CCC1CCCC1
Mol. weight [g/mol]:	140.27
CAS:	1005-68-1

Physical Properties

Property code	Value	Unit	Source
gf	67.43	kJ/mol	Joback Method
hf	-194.53	kJ/mol	Joback Method
hfus	12.07	kJ/mol	Joback Method
hvap	37.72	kJ/mol	Joback Method
log10ws	-3.42		Crippen Method
logp	3.613		Crippen Method
mcvol	140.900	ml/mol	McGowan Method
pc	2525.19	kPa	Joback Method
rinpol	996.00		NIST Webbook
rinpol	1003.00		NIST Webbook
rinpol	998.00		NIST Webbook
tb	443.04	K	Joback Method
tc	636.76	K	Joback Method
tf	198.36	K	Joback Method
vc	0.530	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	300.21	J/mol×K	443.04	Joback Method
cpg	386.01	J/mol×K	604.47	Joback Method
cpg	370.57	J/mol×K	572.19	Joback Method
cpg	354.30	J/mol×K	539.90	Joback Method

cpg	337.17	J/mol×K	507.61	Joback Method
cpg	319.15	J/mol×K	475.33	Joback Method
cpg	400.64	J/mol×K	636.76	Joback Method
dvisc	0.0002922	Pa×s	443.04	Joback Method
dvisc	0.0003846	Pa×s	402.26	Joback Method
dvisc	0.0005385	Pa×s	361.48	Joback Method
dvisc	0.0008216	Pa×s	320.70	Joback Method
dvisc	0.0014176	Pa×s	279.92	Joback Method
dvisc	0.0029461	Pa×s	239.14	Joback Method
dvisc	0.0082711	Pa×s	198.36	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1005681&Units=SI

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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