Cyclopentene, 1-(3-methylbutyl)-

Other names:	Cyclopentene, 1-isopentyl- 1-Isopentyl-1-cyclopentene 1-Isopentylcyclopentene 1-Isopentylcyclopentene-1
Inchi:	InChI=1S/C10H18/c1-9(2)7-8-10-5-3-4-6-10/h5,9H,3-4,6-8H2,1-2H3
InchiKey:	LDBWEVZRYRUOOH-UHFFFAOYSA-N
Formula:	C10H18
SMILES:	CC(C)CCC1=CCCC1
Mol. weight [g/mol]:	138.25
CAS:	37689-15-9

Physical Properties

Property code	Value	Unit	Source
gf	95.47	kJ/mol	Joback Method
hf	-127.88	kJ/mol	Joback Method
hfus	11.83	kJ/mol	Joback Method
hvap	38.99	kJ/mol	Joback Method
ie	8.44 ± 0.02	eV	NIST Webbook
log10ws	-3.52		Crippen Method
logp	3.533		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2668.02	kPa	Joback Method
rinpol	977.00		NIST Webbook
rinpol	1001.00		NIST Webbook
rinpol	984.00		NIST Webbook
rinpol	1005.00		NIST Webbook
rinpol	1005.00		NIST Webbook
rinpol	1001.00		NIST Webbook
rinpol	977.00		NIST Webbook
rinpol	981.60		NIST Webbook
rinpol	977.00		NIST Webbook
rinpol	982.00		NIST Webbook
rinpol	984.00		NIST Webbook
rinpol	1005.00		NIST Webbook
ripol	1108.00		NIST Webbook
ripol	1100.00		NIST Webbook
ripol	1091.80		NIST Webbook

ripol	1107.60		NIST Webbook
ripol	1100.00		NIST Webbook
ripol	1091.80		NIST Webbook
ripol	1107.60		NIST Webbook
ripol	1108.00		NIST Webbook
ripol	1100.00		NIST Webbook
ripol	1092.00		NIST Webbook
tb	441.40 ± 1.50	K	NIST Webbook
tc	649.23	K	Joback Method
tf	215.88	K	Joback Method
vc	0.517	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	287.06	J/mol×K	451.85	Joback Method
cpg	363.77	J/mol×K	616.33	Joback Method
cpg	350.04	J/mol×K	583.44	Joback Method
cpg	335.53	J/mol×K	550.54	Joback Method
cpg	320.22	J/mol×K	517.64	Joback Method
cpg	304.08	J/mol×K	484.75	Joback Method
cpg	376.77	J/mol×K	649.23	Joback Method
dvisc	0.0002677	Pa×s	451.85	Joback Method
dvisc	0.0003523	Pa×s	412.52	Joback Method
dvisc	0.0004912	Pa×s	373.19	Joback Method
dvisc	0.0007408	Pa×s	333.86	Joback Method
dvisc	0.0012466	Pa×s	294.54	Joback Method
dvisc	0.0024629	Pa×s	255.21	Joback Method
dvisc	0.0062360	Pa×s	215.88	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C37689159&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
ie:	Ionization energy
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume