Cyclopentene,3-(3-methylbutyl)-

Inchi: InChI=1S/C10H18/c1-9(2)7-8-10-5-3-4-6-10/h3,5,9-10H,4,6-8H2,1-2H3
InchiKey: BUCQADXYDGFUTQ-UHFFFAOYSA-N
Formula: C10H18
SMILES: CC(C)CCC1C=CCC1
Mol. weight [g/mol]: 138.25
CAS: 37689-16-0

Physical Properties

Property code	Value	Unit	Source
gf	97.39	kJ/mol	Joback Method
hf	-136.75	kJ/mol	Joback Method
hfus	13.29	kJ/mol	Joback Method
hvap	38.02	kJ/mol	Joback Method
ie	8.83 ± 0.02	eV	NIST Webbook
log10ws	-3.27		Crippen Method
logp	3.389		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2619.09	kPa	Joback Method
rinpol	975.70		NIST Webbook
rinpol	976.00		NIST Webbook
rinpol	972.00		NIST Webbook
rinpol	978.00		NIST Webbook
rinpol	978.00		NIST Webbook
rinpol	972.00		NIST Webbook
rinpol	978.00		NIST Webbook
ripol	1094.00		NIST Webbook
ripol	1094.00		NIST Webbook
ripol	1088.00		NIST Webbook
ripol	1094.00		NIST Webbook
ripol	1095.20		NIST Webbook
ripol	1081.70		NIST Webbook
ripol	1088.90		NIST Webbook
ripol	1095.20		NIST Webbook
ripol	1081.70		NIST Webbook
ripol	1088.90		NIST Webbook
ripol	1088.90		NIST Webbook
ripol	1095.20		NIST Webbook

ripol	1097.00		NIST Webbook
ripol	1101.00		NIST Webbook
tb	442.20	K	Joback Method
tc	637.86	K	Joback Method
tf	199.12	K	Joback Method
vc	0.516	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	285.57	J/mol×K	442.20	Joback Method
cpg	303.36	J/mol×K	474.81	Joback Method
cpg	320.25	J/mol×K	507.42	Joback Method
cpg	336.28	J/mol×K	540.03	Joback Method
cpg	351.46	J/mol×K	572.64	Joback Method
cpg	365.85	J/mol×K	605.25	Joback Method
cpg	379.45	J/mol×K	637.86	Joback Method
dvisc	0.0059671	Pa×s	199.12	Joback Method
dvisc	0.0023351	Pa×s	239.63	Joback Method
dvisc	0.0011987	Pa×s	280.15	Joback Method
dvisc	0.0007282	Pa×s	320.66	Joback Method
dvisc	0.0004948	Pa×s	361.17	Joback Method
dvisc	0.0003634	Pa×s	401.69	Joback Method
dvisc	0.0002824	Pa×s	442.20	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=C37689160&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
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