Cyclopentane, (2-methylbutyl)-

Other names: (2-Methylbutyl)cyclopentane
Inchi: InChI=1S/C10H20/c1-3-9(2)8-10-6-4-5-7-10/h9-10H,3-8H2,1-2H3
InchiKey: UORQAXQHLSZGRH-UHFFFAOYSA-N
Formula: C10H20
SMILES: CCC(C)CC1CCCC1
Mol. weight [g/mol]: 140.27
CAS: 53366-38-4

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	1000.00		NIST Webbook
rinpol	995.00		NIST Webbook
rinpol	996.00		NIST Webbook
rinpol	998.00		NIST Webbook
rinpol	1004.00		NIST Webbook
rinpol	1000.00		NIST Webbook
rinpol	1004.00		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	319.15	J/mol×K	475.33	Joback Method
cpg	337.17	J/mol×K	507.61	Joback Method
cpg	354.30	J/mol×K	539.90	Joback Method
cpg	370.57	J/mol×K	572.19	Joback Method
cpg	386.01	J/mol×K	604.47	Joback Method
cpg	400.64	J/mol×K	636.76	Joback Method
dvisc	0.0082711	Pa×s	198.36	Joback Method
dvisc	0.0029461	Pa×s	239.14	Joback Method
dvisc	0.0014176	Pa×s	279.92	Joback Method
dvisc	0.0008216	Pa×s	320.70	Joback Method
dvisc	0.0005385	Pa×s	361.48	Joback Method
dvisc	0.0003846	Pa×s	402.26	Joback Method
dvisc	0.0002922	Pa×s	443.04	Joback Method

Sources

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=C53366384&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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point

vc: Critical Volume