Cyclopentane, 1-methyl-3-(2-methylpropyl)-

Inchi: InChI=1S/C10H20/c1-8(2)6-10-5-4-9(3)7-10/h8-10H,4-7H2,1-3H3
InchiKey: GTALJEOQBKHHJE-UHFFFAOYSA-N
Formula: C10H20
SMILES: CC(C)CC1CCC(C)C1
Mol. weight [g/mol]: 140.27
CAS: 29053-04-1

Physical Properties

Property code	Value	Unit	Source
gf	59.72	kJ/mol	Joback Method
hf	-214.87	kJ/mol	Joback Method
hfus	13.14	kJ/mol	Joback Method
hvap	37.41	kJ/mol	Joback Method
log10ws	-3.18		Crippen Method
logp	3.469		Crippen Method
mcvol	140.900	ml/mol	McGowan Method
pc	2443.48	kPa	Joback Method
rinpol	948.00		NIST Webbook
rinpol	948.00		NIST Webbook
rinpol	956.00		NIST Webbook
rinpol	952.00		NIST Webbook
rinpol	904.00		NIST Webbook
rinpol	900.00		NIST Webbook
rinpol	948.00		NIST Webbook
rinpol	956.00		NIST Webbook
rinpol	952.00		NIST Webbook
tb	438.37	K	Joback Method
tc	631.70	K	Joback Method
tf	194.12	K	Joback Method
vc	0.529	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	299.99	J/mol×K	438.37	Joback Method
cpg	319.24	J/mol×K	470.59	Joback Method
cpg	337.59	J/mol×K	502.81	Joback Method
cpg	355.09	J/mol×K	535.03	Joback Method
cpg	371.74	J/mol×K	567.25	Joback Method
cpg	387.57	J/mol×K	599.48	Joback Method
cpg	402.61	J/mol×K	631.70	Joback Method
dvisc	0.0044728	Pa×s	194.12	Joback Method
dvisc	0.0019096	Pa×s	234.83	Joback Method
dvisc	0.0010484	Pa×s	275.54	Joback Method
dvisc	0.0006717	Pa×s	316.25	Joback Method
dvisc	0.0004763	Pa×s	356.95	Joback Method
dvisc	0.0003624	Pa×s	397.66	Joback Method
dvisc	0.0002901	Pa×s	438.37	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C29053041&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
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