Cyclopentane, (3-methylbutylidene)-

Inchi: InChI=1S/C10H18/c1-9(2)7-8-10-5-3-4-6-10/h8-9H,3-7H2,1-2H3
InchiKey: IUEAAJZOPXGHPO-UHFFFAOYSA-N
Formula: C10H18
SMILES: CC(C)CC=C1CCCC1
Mol. weight [g/mol]: 138.25
CAS: 53366-51-1

Physical Properties

Property code	Value	Unit	Source
gf	120.60	kJ/mol	Joback Method
hf	-98.16	kJ/mol	Joback Method
hfus	11.32	kJ/mol	Joback Method
hvap	38.82	kJ/mol	Joback Method
log10ws	-3.52		Crippen Method
logp	3.533		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2690.21	kPa	Joback Method
rinpol	1008.00		NIST Webbook
rinpol	1003.00		NIST Webbook
rinpol	1003.00		NIST Webbook
rinpol	1008.00		NIST Webbook
tb	454.35	K	Joback Method
tc	655.59	K	Joback Method
tf	212.96	K	Joback Method
vc	0.514	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.73	J/mol×K	454.35	Joback Method
cpg	365.26	J/mol×K	622.05	Joback Method
cpg	351.27	J/mol×K	588.51	Joback Method
cpg	336.47	J/mol×K	554.97	Joback Method
cpg	320.80	J/mol×K	521.43	Joback Method

cpg	304.24	J/mol×K	487.89	Joback Method
cpg	378.47	J/mol×K	655.59	Joback Method
dvisc	0.0002482	Pa×s	454.35	Joback Method
dvisc	0.0003304	Pa×s	414.12	Joback Method
dvisc	0.0004676	Pa×s	373.89	Joback Method
dvisc	0.0007198	Pa×s	333.66	Joback Method
dvisc	0.0012472	Pa×s	293.42	Joback Method
dvisc	0.0025731	Pa×s	253.19	Joback Method
dvisc	0.0069799	Pa×s	212.96	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C53366511&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

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