Cyclopentane, 1-butyl-3-methyl, trans

Inchi: InChI=1S/C10H20/c1-3-4-5-10-7-6-9(2)8-10/h9-10H,3-8H2,1-2H3/t9-,10-/m0/s1
InchiKey: AZIMTRHQTPSRKY-UWVGGRQHSA-N
Formula: C10H20
SMILES: CCCCC1CCC(C)C1
Mol. weight [g/mol]: 140.27

Physical Properties

Property code	Value	Unit	Source
gf	62.16	kJ/mol	Joback Method
hf	-209.59	kJ/mol	Joback Method
hfus	16.66	kJ/mol	Joback Method
hvap	37.80	kJ/mol	Joback Method
log10ws	-3.42		Crippen Method
logp	3.613		Crippen Method
mcvol	140.900	ml/mol	McGowan Method
pc	2424.27	kPa	Joback Method
rinpol	996.00		NIST Webbook
rinpol	993.00		NIST Webbook
rinpol	993.00		NIST Webbook
rinpol	988.00		NIST Webbook
tb	438.81	K	Joback Method
tc	627.75	K	Joback Method
tf	209.12	K	Joback Method
vc	0.535	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	300.00	J/mol×K	438.81	Joback Method
cpg	318.72	J/mol×K	470.30	Joback Method
cpg	336.60	J/mol×K	501.79	Joback Method
cpg	353.67	J/mol×K	533.28	Joback Method
cpg	369.93	J/mol×K	564.77	Joback Method
cpg	385.42	J/mol×K	596.26	Joback Method

cpg	400.16	J/mol×K	627.75	Joback Method
dvisc	0.0030012	Pa×s	209.12	Joback Method
dvisc	0.0015247	Pa×s	247.40	Joback Method
dvisc	0.0009287	Pa×s	285.68	Joback Method
dvisc	0.0006360	Pa×s	323.97	Joback Method
dvisc	0.0004719	Pa×s	362.25	Joback Method
dvisc	0.0003706	Pa×s	400.53	Joback Method
dvisc	0.0003036	Pa×s	438.81	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R10628&Units=SI

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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