Cyclohexene, 4-(1,1-dimethylethyl)-

Other names:	Cyclohexene, 4-tert-butyl-
	4-tert-Butyl-1-cyclohexene
	4-tert-Butylcyclohexene
	4-tertiary-Butylcyclohexene
Inchi:	InChI=1S/C10H18/c1-10(2,3)9-7-5-4-6-8-9/h4-5,9H,6-8H2,1-3H3
InchiKey:	PJTMQLHFQYFBBB-UHFFFAOYSA-N
Formula:	C10H18
SMILES:	CC(C)(C)C1CC=CCC1
Mol. weight [g/mol]:	138.25
CAS:	2228-98-0

Physical Properties

Property code	Value	Unit	Source
gf	90.57	kJ/mol	Joback Method
hf	-146.38	kJ/mol	Joback Method
hfus	7.30	kJ/mol	Joback Method
hvap	37.28	kJ/mol	Joback Method
log10ws	-3.27		Crippen Method
logp	3.389		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2718.33	kPa	Joback Method
tb	436.00 ± 4.00	K	NIST Webbook
tc	656.08	K	Joback Method
tf	213.02	K	Joback Method
vc	0.503	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	287.09	J/mol×K	443.68	Joback Method
cpg	376.03	J/mol×K	620.68	Joback Method
cpg	360.45	J/mol×K	585.28	Joback Method
cpg	343.82	J/mol×K	549.88	Joback Method
cpg	326.08	J/mol×K	514.48	Joback Method

cpg	307.19	J/mol×K	479.08	Joback Method
cpg	390.60	J/mol×K	656.08	Joback Method
dvisc	0.0002635	Pa×s	443.68	Joback Method
dvisc	0.0003647	Pa×s	405.24	Joback Method
dvisc	0.0005406	Pa×s	366.79	Joback Method
dvisc	0.0008784	Pa×s	328.35	Joback Method
dvisc	0.0016236	Pa×s	289.91	Joback Method
dvisc	0.0036212	Pa×s	251.46	Joback Method
dvisc	0.0107881	Pa×s	213.02	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2228980&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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