Cyclohexane, 1,2,3,4,5-pentamethyl

Other names: 1,2,3,4,5-pentamethylcyclohexane
Inchi: InChI=1S/C11H22/c1-7-6-8(2)10(4)11(5)9(7)3/h7-11H,6H2,1-5H3
InchiKey: OPJUNOQIDNTDPN-UHFFFAOYSA-N
Formula: C11H22
SMILES: CC1CC(C)C(C)C(C)C1C
Mol. weight [g/mol]: 154.29

Physical Properties

Property code	Value	Unit	Source
gf	35.35	kJ/mol	Joback Method
hf	-297.41	kJ/mol	Joback Method
hfus	20.36	kJ/mol	Joback Method
hvap	39.27	kJ/mol	Joback Method
log10ws	-3.11		Crippen Method
logp	3.571		Crippen Method
mcvol	154.990	ml/mol	McGowan Method
pc	2064.24	kPa	Joback Method
rinpol	1085.00		NIST Webbook
rinpol	1080.00		NIST Webbook
rinpol	1073.00		NIST Webbook
rinpol	1089.00		NIST Webbook
rinpol	1093.00		NIST Webbook
rinpol	1050.00		NIST Webbook
rinpol	1072.00		NIST Webbook
rinpol	1105.00		NIST Webbook
tb	451.95	K	Joback Method
tc	645.16	K	Joback Method
tf	204.15	K	Joback Method
vc	0.581	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	345.24	J/mol×K	451.95	Joback Method

cpg	366.80	J/mol×K	484.15	Joback Method
cpg	387.51	J/mol×K	516.35	Joback Method
cpg	407.38	J/mol×K	548.55	Joback Method
cpg	426.40	J/mol×K	580.76	Joback Method
cpg	444.58	J/mol×K	612.96	Joback Method
cpg	461.92	J/mol×K	645.16	Joback Method
dvisc	0.0009574	Pa×s	204.15	Joback Method
dvisc	0.0006447	Pa×s	245.45	Joback Method
dvisc	0.0004865	Pa×s	286.75	Joback Method
dvisc	0.0003941	Pa×s	328.05	Joback Method
dvisc	0.0003347	Pa×s	369.35	Joback Method
dvisc	0.0002937	Pa×s	410.65	Joback Method
dvisc	0.0002640	Pa×s	451.95	Joback Method

Sources

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=R429&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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