Cyclohexene,1-(2-methylpropyl)-

Other names:	1-Isobutylcyclohexene-1
	1-Isobutyl-1-cyclohexene
Inchi:	InChI=1S/C10H18/c1-9(2)8-10-6-4-3-5-7-10/h6,9H,3-5,7-8H2,1-2H3
InchiKey:	NQIVPQHOBXSALG-UHFFFAOYSA-N
Formula:	C10H18
SMILES:	CC(C)CC1=CCCCC1
Mol. weight [g/mol]:	138.25
CAS:	3983-03-7

Physical Properties

Property code	Value	Unit	Source
gf	83.37	kJ/mol	Joback Method
hf	-134.04	kJ/mol	Joback Method
hfus	9.73	kJ/mol	Joback Method
hvap	39.16	kJ/mol	Joback Method
ie	8.40 ± 0.01	eV	NIST Webbook
log10ws	-3.52		Crippen Method
logp	3.533		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2738.28	kPa	Joback Method
rinpol	1040.00		NIST Webbook
rinpol	1000.90		NIST Webbook
rinpol	1000.90		NIST Webbook
rinpol	1003.00		NIST Webbook
rinpol	1003.00		NIST Webbook
rinpol	1001.00		NIST Webbook
rinpol	1001.00		NIST Webbook
rinpol	1000.90		NIST Webbook
rinpol	1031.00		NIST Webbook
rinpol	1005.00		NIST Webbook
ripol	1129.00		NIST Webbook
ripol	1130.80		NIST Webbook
ripol	1119.80		NIST Webbook
ripol	1141.40		NIST Webbook
ripol	1129.00		NIST Webbook
ripol	1118.00		NIST Webbook
ripol	1159.00		NIST Webbook

ripol	1144.00		NIST Webbook
ripol	1129.00		NIST Webbook
ripol	1140.00		NIST Webbook
tb	456.12	K	Joback Method
tc	661.32	K	Joback Method
tf	212.36	K	Joback Method
vc	0.509	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.64	J/mol×K	456.12	Joback Method
cpg	304.67	J/mol×K	490.32	Joback Method
cpg	321.79	J/mol×K	524.52	Joback Method
cpg	338.00	J/mol×K	558.72	Joback Method
cpg	353.34	J/mol×K	592.92	Joback Method
cpg	367.84	J/mol×K	627.12	Joback Method
cpg	381.54	J/mol×K	661.32	Joback Method
dvisc	0.0103400	Pa×s	212.36	Joback Method
dvisc	0.0032888	Pa×s	252.99	Joback Method
dvisc	0.0014362	Pa×s	293.61	Joback Method
dvisc	0.0007671	Pa×s	334.24	Joback Method
dvisc	0.0004694	Pa×s	374.87	Joback Method
dvisc	0.0003162	Pa×s	415.49	Joback Method
dvisc	0.0002285	Pa×s	456.12	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=C3983037&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
ie:	Ionization energy
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume