Cyclohexene,4-butyl-

Other names:	4-Butyl-1-cyclohexene
	4-Butyl-cyclohexene
	4-Butylcyclohexene-1
Inchi:	InChI=1S/C10H18/c1-2-3-7-10-8-5-4-6-9-10/h4-5,10H,2-3,6-9H2,1H3
InchiKey:	JVPPGMNHTVHMES-UHFFFAOYSA-N
Formula:	C10H18
SMILES:	CCCCC1CC=CCC1
Mol. weight [g/mol]:	138.25
CAS:	21524-26-5

Physical Properties

Property code	Value	Unit	Source
gf	87.73	kJ/mol	Joback Method
hf	-137.63	kJ/mol	Joback Method
hfus	14.71	kJ/mol	Joback Method
hvap	38.58	kJ/mol	Joback Method
ie	8.85 ± 0.02	eV	NIST Webbook
log10ws	-3.52		Crippen Method
logp	3.533		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2665.27	kPa	Joback Method
rinpol	1042.00		NIST Webbook
rinpol	1036.00		NIST Webbook
rinpol	1042.00		NIST Webbook
rinpol	1036.00		NIST Webbook
rinpol	1042.00		NIST Webbook
rinpol	1046.00		NIST Webbook
rinpol	1036.40		NIST Webbook
ripol	1184.00		NIST Webbook
ripol	1181.00		NIST Webbook
ripol	1175.00		NIST Webbook
ripol	1196.00		NIST Webbook
ripol	1196.00		NIST Webbook
ripol	1206.00		NIST Webbook
ripol	1212.00		NIST Webbook
ripol	1174.00		NIST Webbook
ripol	1169.60		NIST Webbook

ripol	1181.00		NIST Webbook
ripol	1186.00		NIST Webbook
ripol	1192.00		NIST Webbook
ripol	1196.00		NIST Webbook
ripol	1170.00		NIST Webbook
ripol	1175.00		NIST Webbook
ripol	1181.00		NIST Webbook
ripol	1185.90		NIST Webbook
ripol	1191.80		NIST Webbook
ripol	1196.00		NIST Webbook
ripol	1169.60		NIST Webbook
ripol	1175.30		NIST Webbook
ripol	1196.00		NIST Webbook
ripol	1195.80		NIST Webbook
ripol	1174.50		NIST Webbook
ripol	1186.50		NIST Webbook
ripol	1195.80		NIST Webbook
ripol	1174.50		NIST Webbook
ripol	1186.50		NIST Webbook
ripol	1186.50		NIST Webbook
tb	446.91	K	Joback Method
tc	645.71	K	Joback Method
tf	210.60	K	Joback Method
vc	0.514	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	285.10	J/mol×K	446.91	Joback Method
cpg	303.42	J/mol×K	480.04	Joback Method
cpg	320.83	J/mol×K	513.18	Joback Method
cpg	337.36	J/mol×K	546.31	Joback Method
cpg	353.03	J/mol×K	579.44	Joback Method
cpg	367.88	J/mol×K	612.57	Joback Method
cpg	381.92	J/mol×K	645.71	Joback Method
dvisc	0.0063747	Pa×s	210.60	Joback Method
dvisc	0.0024458	Pa×s	249.99	Joback Method
dvisc	0.0012179	Pa×s	289.37	Joback Method
dvisc	0.0007168	Pa×s	328.75	Joback Method
dvisc	0.0004725	Pa×s	368.14	Joback Method
dvisc	0.0003376	Pa×s	407.52	Joback Method

dvisc	0.0002559	Pa×s	446.91	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C21524265&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
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