Cyclohexene,3-butyl-

Other names:	3-Butylcyclohexene
	3-Butylcyclohexene-1
	3-butyl-1-cyclohexene
Inchi:	InChI=1S/C10H18/c1-2-3-7-10-8-5-4-6-9-10/h5,8,10H,2-4,6-7,9H2,1H3
InchiKey:	DPWVJRLEBPJBSR-UHFFFAOYSA-N
Formula:	C10H18
SMILES:	CCCCC1C=CCCC1
Mol. weight [g/mol]:	138.25
CAS:	3983-07-1

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	8.80 ± 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	1046.00		NIST Webbook
rinpol	1041.50		NIST Webbook
rinpol	1082.00		NIST Webbook
rinpol	1036.00		NIST Webbook
rinpol	1074.00		NIST Webbook
rinpol	1045.00		NIST Webbook
rinpol	995.60		NIST Webbook
rinpol	991.40		NIST Webbook
rinpol	1041.00		NIST Webbook
rinpol	1035.90		NIST Webbook
ripol	1184.00		NIST Webbook
ripol	1161.80		NIST Webbook
ripol	1193.00		NIST Webbook
ripol	1204.00		NIST Webbook

ripol	1209.00		NIST Webbook
ripol	1172.00		NIST Webbook
ripol	1182.00		NIST Webbook
ripol	1179.00		NIST Webbook
ripol	1158.80		NIST Webbook
ripol	1189.00		NIST Webbook
ripol	1195.00		NIST Webbook
ripol	1167.00		NIST Webbook
ripol	1173.00		NIST Webbook
ripol	1178.60		NIST Webbook
ripol	1183.80		NIST Webbook
ripol	1188.80		NIST Webbook
ripol	1194.80		NIST Webbook
ripol	1167.20		NIST Webbook
ripol	1172.90		NIST Webbook
ripol	1193.00		NIST Webbook
ripol	1192.90		NIST Webbook
ripol	1171.90		NIST Webbook
ripol	1182.90		NIST Webbook
ripol	1192.90		NIST Webbook
ripol	1171.90		NIST Webbook
ripol	1182.90		NIST Webbook
ripol	1151.50		NIST Webbook
ripol	1209.00		NIST Webbook
ripol	1189.00		NIST Webbook
ripol	1151.50		NIST Webbook
ripol	1193.00		NIST Webbook
ripol	1171.90		NIST Webbook
ripol	1183.80		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

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=C3983071&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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