Cyclopentene,3-butyl-

Other names:	3-Butyl-1-cyclopentene
	3-Butylcyclopentene-1
Inchi:	InChI=1S/C9H16/c1-2-3-6-9-7-4-5-8-9/h4,7,9H,2-3,5-6,8H2,1H3
InchiKey:	OCVYLEAVUIYGLL-UHFFFAOYSA-N
Formula:	C9H16
SMILES:	CCCCC1C=CCC1
Mol. weight [g/mol]:	124.22
CAS:	22531-00-6

Physical Properties

Property code	Value	Unit	Source
gf	91.41	kJ/mol	Joback Method
hf	-110.83	kJ/mol	Joback Method
hfus	14.22	kJ/mol	Joback Method
hvap	36.18	kJ/mol	Joback Method
ie	8.83 ± 0.02	eV	NIST Webbook
log10ws	-3.10		Crippen Method
logp	3.143		Crippen Method
mcvol	122.510	ml/mol	McGowan Method
pc	2871.95	kPa	Joback Method
rinpol	911.00		NIST Webbook
rinpol	910.00		NIST Webbook
rinpol	914.00		NIST Webbook
rinpol	914.30		NIST Webbook
rinpol	910.50		NIST Webbook
rinpol	910.00		NIST Webbook
rinpol	914.00		NIST Webbook
rinpol	911.00		NIST Webbook
rinpol	916.00		NIST Webbook
rinpol	939.00		NIST Webbook
rinpol	944.00		NIST Webbook
ripol	1042.40		NIST Webbook
ripol	1042.00		NIST Webbook
ripol	1028.10		NIST Webbook
ripol	1036.60		NIST Webbook
ripol	1027.50		NIST Webbook
ripol	1028.10		NIST Webbook

ripol	1036.60		NIST Webbook
ripol	1042.60		NIST Webbook
ripol	1039.10		NIST Webbook
ripol	1035.70		NIST Webbook
ripol	1042.40		NIST Webbook
ripol	1031.60		NIST Webbook
ripol	1028.00		NIST Webbook
ripol	1023.00		NIST Webbook
ripol	1043.00		NIST Webbook
ripol	1039.00		NIST Webbook
ripol	1036.00		NIST Webbook
ripol	1032.00		NIST Webbook
ripol	1035.00		NIST Webbook
ripol	1046.00		NIST Webbook
ripol	1042.00		NIST Webbook
ripol	1049.00		NIST Webbook
ripol	1022.90		NIST Webbook
ripol	1027.00		NIST Webbook
tb	424.80 ± 0.70	K	NIST Webbook
tc	612.82	K	Joback Method
tf	202.85	K	Joback Method
vc	0.467	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	242.32	J/mol×K	419.76	Joback Method
cpg	316.25	J/mol×K	580.64	Joback Method
cpg	302.97	J/mol×K	548.47	Joback Method
cpg	288.97	J/mol×K	516.29	Joback Method
cpg	274.21	J/mol×K	484.11	Joback Method
cpg	258.67	J/mol×K	451.94	Joback Method
cpg	328.83	J/mol×K	612.82	Joback Method
dvisc	0.0002955	Pa×s	419.76	Joback Method
dvisc	0.0003676	Pa×s	383.61	Joback Method
dvisc	0.0004787	Pa×s	347.46	Joback Method
dvisc	0.0006626	Pa×s	311.31	Joback Method
dvisc	0.0009991	Pa×s	275.15	Joback Method
dvisc	0.0017058	Pa×s	239.00	Joback Method
dvisc	0.0035241	Pa×s	202.85	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C22531006&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

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