Cyclobutane, butyl-

Other names: Butylcyclobutane
Inchi: InChI=1S/C8H16/c1-2-3-5-8-6-4-7-8/h8H,2-7H2,1H3
InchiKey: RFLJRIWHBUSIOM-UHFFFAOYSA-N
Formula: C8H16
SMILES: CCCCC1CCC1
Mol. weight [g/mol]: 112.21
CAS: 13152-44-8

Physical Properties

Property code	Value	Unit	Source
gf	65.13	kJ/mol	Joback Method
hf	-141.81	kJ/mol	Joback Method
hfus	12.51	kJ/mol	Joback Method
hvap	33.49	kJ/mol	Joback Method
log10ws	-2.82		Crippen Method
logp	2.977		Crippen Method
mcvol	112.720	ml/mol	McGowan Method
pc	2982.79	kPa	Joback Method
tb	393.45	K	Joback Method
tc	578.37	K	Joback Method
tf	194.34	K	Joback Method
vc	0.432	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	215.12	J/mol×K	393.45	Joback Method
cpg	230.64	J/mol×K	424.27	Joback Method
cpg	245.42	J/mol×K	455.09	Joback Method
cpg	259.49	J/mol×K	485.91	Joback Method
cpg	272.87	J/mol×K	516.73	Joback Method
cpg	285.58	J/mol×K	547.55	Joback Method
cpg	297.67	J/mol×K	578.37	Joback Method
dvisc	0.0024213	Pa×s	194.34	Joback Method

dvisc	0.0013675	Pa×s	227.53	Joback Method
dvisc	0.0008932	Pa×s	260.71	Joback Method
dvisc	0.0006424	Pa×s	293.89	Joback Method
dvisc	0.0004939	Pa×s	327.08	Joback Method
dvisc	0.0003986	Pa×s	360.26	Joback Method
dvisc	0.0003335	Pa×s	393.45	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13152448&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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume