Cyclobutane, 1,2-bis(methylene)-

Other names: Cyclobutane, 1,2-dimethylene-
1,2-Dimethylenecyclobutane
1,2-bis(Methylene)cyclobutane
Inchi: InChI=1S/C6H8/c1-5-3-4-6(5)2/h1-4H2
InchiKey: QOFLWDYWJZBWHM-UHFFFAOYSA-N
Formula: C6H8
SMILES: C=C1CCC1=C
Mol. weight [g/mol]: 80.13
CAS: 14296-80-1

Physical Properties

Property code	Value	Unit	Source
gf	162.16	kJ/mol	Joback Method
hf	204.00	kJ/mol	NIST Webbook
hfus	3.94	kJ/mol	Joback Method
hvap	29.66	kJ/mol	Joback Method
ie	8.77	eV	NIST Webbook
ie	8.66	eV	NIST Webbook
ie	8.66 ± 0.03	eV	NIST Webbook
log10ws	-1.94		Crippen Method
logp	1.893		Crippen Method
mcvol	75.940	ml/mol	McGowan Method
pc	4067.32	kPa	Joback Method
tb	346.00 ± 4.00	K	NIST Webbook
tb	346.00	K	NIST Webbook
tc	541.47	K	Joback Method
tf	203.40	K	Joback Method
vc	0.289	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	119.99	J/mol×K	350.68	Joback Method
cpg	129.28	J/mol×K	382.48	Joback Method

cpg	138.11	J/mol×K	414.28	Joback Method
cpg	146.49	J/mol×K	446.08	Joback Method
cpg	154.43	J/mol×K	477.88	Joback Method
cpg	161.96	J/mol×K	509.68	Joback Method
cpg	169.09	J/mol×K	541.47	Joback Method
dvisc	0.0007987	Pa×s	203.40	Joback Method
dvisc	0.0006078	Pa×s	227.95	Joback Method
dvisc	0.0004878	Pa×s	252.49	Joback Method
dvisc	0.0004070	Pa×s	277.04	Joback Method
dvisc	0.0003498	Pa×s	301.59	Joback Method
dvisc	0.0003076	Pa×s	326.13	Joback Method
dvisc	0.0002753	Pa×s	350.68	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14296801&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume