

Bicyclobutylidene

Other names:	«delta»-1,1'-Bicyclobutyl Cyclobutane, cyclobutylidene- Cyclobutylidenecyclobutane Dicyclobutylidene Bicyclobutylidene
Inchi:	InChI=1S/C8H12/c1-3-7(4-1)8-5-2-6-8/h1-6H2
InchiKey:	ANQVAFUCYRTKOQ-UHFFFAOYSA-N
Formula:	C8H12
SMILES:	C1CC(=C2CCC2)C1
Mol. weight [g/mol]:	108.18
CAS:	6708-14-1

Physical Properties

Property code	Value	Unit	Source
gf	139.90	kJ/mol	Joback Method
hf	0.35	kJ/mol	Joback Method
hfus	6.85	kJ/mol	Joback Method
hvap	35.81	kJ/mol	Joback Method
log10ws	-2.81		Crippen Method
logp	2.651		Crippen Method
mcvol	97.560	ml/mol	McGowan Method
pc	3886.79	kPa	Joback Method
tb	422.92	K	Joback Method
tc	639.19	K	Joback Method
tf	243.04	K	Joback Method
vc	0.369	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	188.69	J/mol×K	422.92	Joback Method
cpg	203.94	J/mol×K	458.97	Joback Method
cpg	218.15	J/mol×K	495.01	Joback Method
cpg	231.38	J/mol×K	531.06	Joback Method

cpg	243.70	J/molxK	567.10	Joback Method
cpg	255.18	J/molxK	603.15	Joback Method
cpg	265.87	J/molxK	639.19	Joback Method
dvisc	0.0017086	Paxs	243.04	Joback Method
dvisc	0.0012143	Paxs	273.02	Joback Method
dvisc	0.0009233	Paxs	303.00	Joback Method
dvisc	0.0007376	Paxs	332.98	Joback Method
dvisc	0.0006115	Paxs	362.96	Joback Method
dvisc	0.0005216	Paxs	392.94	Joback Method
dvisc	0.0004552	Paxs	422.92	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	358.00	K	13.30	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6708141&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

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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