1,1'-Bicyclooctyl

Other names:	Bicyclooctyl
Inchi:	InChI=1S/C16H30/c1-3-7-11-15(12-8-4-1)16-13-9-5-2-6-10-14-16/h15-16H,1-14H2
InchiKey:	NLUNLVTVUDIHFE-UHFFFAOYSA-N
Formula:	C16H30
SMILES:	C1CCCC(C2CCCCCCC2)CCC1
Mol. weight [g/mol]:	222.41
CAS:	6708-17-4

Physical Properties

Property code	Value	Unit	Source
gf	84.34	kJ/mol	Joback Method
hf	-289.57	kJ/mol	Joback Method
hfus	12.47	kJ/mol	Joback Method
hvap	52.76	kJ/mol	Joback Method
log10ws	-5.83		Crippen Method
logp	5.707		Crippen Method
mcvol	214.580	ml/mol	McGowan Method
pc	1985.89	kPa	Joback Method
rinpol	1808.00		NIST Webbook
tb	621.66	K	Joback Method
tc	868.70	K	Joback Method
tf	270.76	K	Joback Method
vc	0.765	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	612.75	J/mol×K	621.66	Joback Method
cpg	644.45	J/mol×K	662.83	Joback Method
cpg	673.90	J/mol×K	704.01	Joback Method
cpg	701.11	J/mol×K	745.18	Joback Method
cpg	726.14	J/mol×K	786.36	Joback Method
cpg	749.01	J/mol×K	827.53	Joback Method
cpg	769.74	J/mol×K	868.70	Joback Method

dvisc	0.0250568	Pa×s	270.76	Joback Method
dvisc	0.0036919	Pa×s	329.24	Joback Method
dvisc	0.0009693	Pa×s	387.73	Joback Method
dvisc	0.0003614	Pa×s	446.21	Joback Method
dvisc	0.0001693	Pa×s	504.69	Joback Method
dvisc	0.0000929	Pa×s	563.18	Joback Method
dvisc	0.0000570	Pa×s	621.66	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6708174&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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