[1,1'-Bicyclopentyl]-2-one

Other names: [Bicyclopentyl]-2-one
[1,1'-Bicyclopentan]-2-one
Cyclopentanone, 2-cyclopentyl-
2-Cyclopentylcyclopentanone
Inchi: InChI=1S/C10H16O/c11-10-7-3-6-9(10)8-4-1-2-5-8/h8-9H,1-7H2
InchiKey: CWZGKTMWPFTJCS-UHFFFAOYSA-N
Formula: C10H16O
SMILES: O=C1CCCC1C1CCCC1
Mol. weight [g/mol]: 152.23
CAS: 4884-24-6

Physical Properties

Property code	Value	Unit	Source
gf	-16.17	kJ/mol	Joback Method
hf	-266.47	kJ/mol	Joback Method
hfus	9.04	kJ/mol	Joback Method
hvap	42.62	kJ/mol	Joback Method
log10ws	-2.59		Crippen Method
logp	2.546		Crippen Method
mcvol	131.610	ml/mol	McGowan Method
pc	3145.56	kPa	Joback Method
tb	526.58	K	Joback Method
tc	766.02	K	Joback Method
tf	292.48	K	Joback Method
vc	0.484	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	325.13	J/mol×K	526.58	Joback Method
cpg	346.46	J/mol×K	566.49	Joback Method
cpg	366.51	J/mol×K	606.39	Joback Method
cpg	385.29	J/mol×K	646.30	Joback Method
cpg	402.83	J/mol×K	686.21	Joback Method

cpg	419.17	J/mol×K	726.11	Joback Method
cpg	434.33	J/mol×K	766.02	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4884246&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
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