Bicyclohexyl, 4-phenyl-

Other names: Benzene, [1,1'-bicyclohexyl]-4-yl-
1-Phenyl-4-cyclohexylcyclohexane
[1,1'-bicyclohexyl]-4-ylbenzene
Inchi: InChI=1S/C18H26/c1-3-7-15(8-4-1)17-11-13-18(14-12-17)16-9-5-2-6-10-16/h1,3-4,7-8,16
InchiKey: MRGBGAHKAGKZID-UHFFFAOYSA-N
Formula: C18H26
SMILES: c1ccc(C2CCC(C3CCCCC3)CC2)cc1
Mol. weight [g/mol]: 242.40
CAS: 20273-27-2

Physical Properties

Property code	Value	Unit	Source
gf	254.28	kJ/mol	Joback Method
hf	-90.02	kJ/mol	Joback Method
hfus	21.16	kJ/mol	Joback Method
hvap	58.49	kJ/mol	Joback Method
log10ws	-5.73		Crippen Method
logp	5.541		Crippen Method
mcvol	219.000	ml/mol	McGowan Method
pc	1996.55	kPa	Joback Method
rinpol	1971.00		NIST Webbook
tb	672.35	K	Joback Method
tc	925.53	K	Joback Method
tf	329.56	K	Joback Method
vc	0.800	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	645.47	J/mol×K	672.35	Joback Method
cpg	673.04	J/mol×K	714.55	Joback Method
cpg	698.38	J/mol×K	756.74	Joback Method
cpg	721.61	J/mol×K	798.94	Joback Method
cpg	742.82	J/mol×K	841.14	Joback Method

cpg	762.10	J/mol×K	883.34	Joback Method
cpg	779.57	J/mol×K	925.53	Joback Method
dvisc	0.0038892	Pa×s	329.56	Joback Method
dvisc	0.0015587	Pa×s	386.69	Joback Method
dvisc	0.0007905	Pa×s	443.82	Joback Method
dvisc	0.0004680	Pa×s	500.96	Joback Method
dvisc	0.0003085	Pa×s	558.09	Joback Method
dvisc	0.0002197	Pa×s	615.22	Joback Method
dvisc	0.0001658	Pa×s	672.35	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C20273272&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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume