

1,2-Cyclobuta-3,4:5,6 bicyclopentabenzene

Other names:	1,2-Cyclobuteno-3,4:5,6-bi(cyclopenteno)benzene
Inchi:	InChI=1S/C14H16/c1-3-9-10-4-2-6-12(10)14-8-7-13(14)11(9)5-1/h1-8H2
InchiKey:	LWTCAZSEGNGWRU-UHFFFAOYSA-N
Formula:	C14H16
SMILES:	<chem>C1Cc2c3c(c4c(c2C1)CC4)CCC3</chem>
Mol. weight [g/mol]:	184.28
CAS:	54922-12-2

Physical Properties

Property code	Value	Unit	Source
gf	348.74	kJ/mol	Joback Method
hf	132.47	kJ/mol	Joback Method
hfus	17.40	kJ/mol	Joback Method
hvap	52.84	kJ/mol	Joback Method
ie	7.95 ± 0.05	eV	NIST Webbook
log10ws	-4.30		Crippen Method
logp	2.763		Crippen Method
mcvol	151.780	ml/mol	McGowan Method
pc	2947.28	kPa	Joback Method
tb	601.26	K	Joback Method
tc	839.15	K	Joback Method
tf	406.62	K	Joback Method
vc	0.594	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	395.14	J/molxK	601.26	Joback Method
cpg	411.73	J/molxK	640.91	Joback Method
cpg	427.04	J/molxK	680.56	Joback Method
cpg	441.26	J/molxK	720.21	Joback Method
cpg	454.54	J/molxK	759.86	Joback Method
cpg	467.08	J/molxK	799.50	Joback Method
cpg	479.05	J/molxK	839.15	Joback Method

dvisc	0.0026232	Paxs	406.62	Joback Method
dvisc	0.0024446	Paxs	439.06	Joback Method
dvisc	0.0023004	Paxs	471.50	Joback Method
dvisc	0.0021817	Paxs	503.94	Joback Method
dvisc	0.0020825	Paxs	536.38	Joback Method
dvisc	0.0019983	Paxs	568.82	Joback Method
dvisc	0.0019261	Paxs	601.26	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C54922122&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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

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