Biphenyl, 4,4'-diiodo-

Other names: 1,1'-Biphenyl, 4,4'-diiodo-
Biphenyl, 4,4'-diiodo
4,4'-diiodobiphenyl
Inchi: InChI=1S/C12H8I2/c13-11-5-1-9(2-6-11)10-3-7-12(14)8-4-10/h1-8H
InchiKey: GPYDMVZCPRONLW-UHFFFAOYSA-N
Formula: C12H8I2
SMILES: Ic1ccc(-c2ccc(I)cc2)cc1
Mol. weight [g/mol]: 406.00

Physical Properties

Property code	Value	Unit	Source
af	0.4235		Cheméo Relay (1.0)
gf	371.96	kJ/mol	Joback Method
hf	312.66	kJ/mol	Cheméo Relay (1.0)
hfus	22.95	kJ/mol	Joback Method
hvap	91.83	kJ/mol	Cheméo Relay (1.0)
ie	8.10	eV	Cheméo Relay (1.0)
log10ws	-7.15		Cheméo Relay (1.0)
logp	4.563		Crippen Method
mcvol	184.060	ml/mol	McGowan Method
pc	3149.09	kPa	Joback Method
tb	655.24	K	Cheméo Relay (1.0)
tc	897.91	K	Cheméo Relay (1.0)
tf	452.77	K	Cheméo Relay (1.0)
vc	0.612	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	363.44	J/mol×K	723.56	Joback Method
cpg	375.17	J/mol×K	775.98	Joback Method
cpg	385.67	J/mol×K	828.40	Joback Method
cpg	395.11	J/mol×K	880.82	Joback Method
cpg	403.68	J/mol×K	933.24	Joback Method

cpg	411.57	J/mol×K	985.66	Joback Method
cpg	418.95	J/mol×K	1038.07	Joback Method
dvisc	0.0014121	Pa×s	419.00	Joback Method
dvisc	0.0008183	Pa×s	469.76	Joback Method
dvisc	0.0005275	Pa×s	520.52	Joback Method
dvisc	0.0003676	Pa×s	571.28	Joback Method
dvisc	0.0002717	Pa×s	622.04	Joback Method
dvisc	0.0002102	Pa×s	672.80	Joback Method
dvisc	0.0001686	Pa×s	723.56	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):
Cheméo Relay (1.0, beta):
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3001158&Units=SI
Joback Method: https://en.wikipedia.org/wiki/Joback_method

Legend

af: Acentric Factor
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