2-(4-Biphenyl)-2-propanol

Other names: 2-(p-Biphenylyl)-2-propanol
[1,1'-Biphenyl]-4-methanol, «alpha»,«alpha»-dimethyl-
2-(4-Biphenyl)-2-propanol
«alpha»,«alpha»-dimethyl[1,1'-biphenyl]-4-methanol
Inchi: InChI=1S/C15H16O/c1-15(2,16)14-10-8-13(9-11-14)12-6-4-3-5-7-12/h3-11,16H,1-2H3
InchiKey: GOKGIYHIVSGXDM-UHFFFAOYSA-N
Formula: C15H16O
SMILES: CC(C)(O)c1ccc(-c2ccccc2)cc1
Mol. weight [g/mol]: 212.29

Physical Properties

Property code	Value	Unit	Source
af	0.6685		Cheméo Relay (1.0)
gf	156.63	kJ/mol	Joback Method
hf	-79.99	kJ/mol	Cheméo Relay (1.0)
hfus	18.97	kJ/mol	Joback Method
hvap	100.34	kJ/mol	Cheméo Relay (1.0)
ie	8.41	eV	Cheméo Relay (1.0)
log10ws	-3.48		Cheméo Relay (1.0)
logp	3.581		Crippen Method
mcvol	180.560	ml/mol	McGowan Method
pc	2770.08	kPa	Joback Method
tb	593.17	K	Cheméo Relay (1.0)
tc	844.21	K	Cheméo Relay (1.0)
tf	400.36	K	Cheméo Relay (1.0)
vc	0.666	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	481.89	J/mol×K	689.89	Joback Method
cpg	496.50	J/mol×K	728.04	Joback Method
cpg	509.97	J/mol×K	766.19	Joback Method
cpg	522.40	J/mol×K	804.34	Joback Method

cpg	533.89	J/mol×K	842.50	Joback Method
cpg	544.52	J/mol×K	880.65	Joback Method
cpg	554.38	J/mol×K	918.80	Joback Method
dvisc	0.0023177	Pa×s	387.41	Joback Method
dvisc	0.0007721	Pa×s	437.82	Joback Method
dvisc	0.0003227	Pa×s	488.24	Joback Method
dvisc	0.0001588	Pa×s	538.65	Joback Method
dvisc	0.0000882	Pa×s	589.06	Joback Method
dvisc	0.0000538	Pa×s	639.48	Joback Method
dvisc	0.0000353	Pa×s	689.89	Joback Method

Sources

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=C34352744&Units=SI
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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