1,1'-Biphenyl, 4,4'-bis(4-propylcyclohexyl)-

Other names:	1,1'-Biphenyl, 4,4'-bis(trans-4-propylcyclohexyl)-
	4,4'-Bis(trans-4-propylcyclohexyl)-[1,1'-biphenyl]
	CBC 33
	[trans(trans)]-4,4'-bis(4-propylcyclohexyl(-1,1'-biphenyl
Inchi:	InChI=1S/C30H42/c1-3-5-23-7-11-25(12-8-23)27-15-19-29(20-16-27)30-21-17-28(18-22-
InchiKey:	LUCHFKBTWHPREI-UHFFFAOYSA-N
Formula:	C30H42
SMILES:	CCCC1CCC(c2ccc(-c3ccc(C4CCC(CCC)CC4)cc3)cc2)CC1
Mol. weight [g/mol]:	402.65
CAS:	85600-56-2

Physical Properties

Property code	Value	Unit	Source
gf	440.76	kJ/mol	Joback Method
hf	-144.45	kJ/mol	Joback Method
hfus	46.57	kJ/mol	Joback Method
hvap	88.49	kJ/mol	Joback Method
log10ws	-10.77		Crippen Method
logp	9.501		Crippen Method
mcvol	364.320	ml/mol	McGowan Method
pc	1025.97	kPa	Joback Method
tb	978.88	K	Joback Method
tc	1222.60	K	Joback Method
tf	512.02	K	Joback Method
vc	1.363	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1296.07	J/mol×K	978.88	Joback Method
cpg	1317.33	J/mol×K	1019.50	Joback Method
cpg	1336.48	J/mol×K	1060.12	Joback Method
cpg	1353.64	J/mol×K	1100.74	Joback Method
cpg	1368.93	J/mol×K	1141.36	Joback Method

cpg	1382.49	J/mol×K	1181.98	Joback Method
cpg	1394.43	J/mol×K	1222.60	Joback Method
dvisc	0.0007359	Pa×s	512.02	Joback Method
dvisc	0.0003529	Pa×s	589.83	Joback Method
dvisc	0.0002008	Pa×s	667.64	Joback Method
dvisc	0.0001286	Pa×s	745.45	Joback Method
dvisc	0.0000895	Pa×s	823.26	Joback Method
dvisc	0.0000664	Pa×s	901.07	Joback Method
dvisc	0.0000516	Pa×s	978.88	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C85600562&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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