1,1'-Biphenyl, 4-(4-pentylcyclohexyl)-4'-(4-propylcyclohexyl)-, [trans(trans)]-

Other names: 1,1'-Biphenyl, 4-(4-pentylcyclohexyl)-4'-(4-propylcyclohexyl)-[trans(trans)]-4-(4-pentylcyclohexyl)-4'-(4-propylcyclohexyl)biphenyl
[trans(trans)]-4-(4-pentylcyclohexyl)-4'-(4-propylcyclohexyl)-1,1'-biphenyl

Inchi: InChI=1S/C32H46/c1-3-5-6-8-26-11-15-28(16-12-26)30-19-23-32(24-20-30)31-21-17-29(

InchiKey: PJBOOKMLDPERRS-UHFFFAOYSA-N

Formula: C32H46

SMILES: CCCCCC1CCC(c2ccc(-c3ccc(C4CCC(CCC)CC4)cc3)cc2)CC1

Mol. weight [g/mol]: 430.71

CAS: 80955-71-1

Physical Properties

Property code	Value	Unit	Source
gf	457.60	kJ/mol	Joback Method
hf	-185.73	kJ/mol	Joback Method
hfus	51.75	kJ/mol	Joback Method
hvap	92.94	kJ/mol	Joback Method
log10ws	-11.61		Crippen Method
logp	10.282		Crippen Method
mcvol	392.500	ml/mol	McGowan Method
pc	910.53	kPa	Joback Method
tb	1024.64	K	Joback Method
tc	1266.81	K	Joback Method
tf	534.56	K	Joback Method
vc	1.476	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1424.10	J/mol×K	1024.64	Joback Method
cpg	1444.52	J/mol×K	1065.00	Joback Method
cpg	1462.88	J/mol×K	1105.36	Joback Method
cpg	1479.32	J/mol×K	1145.73	Joback Method
cpg	1493.96	J/mol×K	1186.09	Joback Method
cpg	1506.94	J/mol×K	1226.45	Joback Method

cpg	1518.40	J/mol×K	1266.81	Joback Method
dvisc	0.0005946	Pa×s	534.56	Joback Method
dvisc	0.0002797	Pa×s	616.24	Joback Method
dvisc	0.0001570	Pa×s	697.92	Joback Method
dvisc	0.0000995	Pa×s	779.60	Joback Method
dvisc	0.0000687	Pa×s	861.28	Joback Method
dvisc	0.0000506	Pa×s	942.96	Joback Method
dvisc	0.0000391	Pa×s	1024.64	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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=C80955711&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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