1,1'-Biphenyl, 3,4',5-triisopropyl

Inchi: InChI=1S/C21H28/c1-14(2)17-7-9-18(10-8-17)21-12-19(15(3)4)11-20(13-21)16(5)6/h7-16
InchiKey: QNOLWWWIKARVDL-UHFFFAOYSA-N
Formula: C21H28
SMILES: CC(C)c1ccc(-c2cc(C(C)C)cc(C(C)C)c2)cc1
Mol. weight [g/mol]: 280.45

Physical Properties

Property code	Value	Unit	Source
gf	314.55	kJ/mol	Joback Method
hf	-53.96	kJ/mol	Joback Method
hfus	26.49	kJ/mol	Joback Method
hvap	67.71	kJ/mol	Joback Method
log10ws	-7.63		Crippen Method
logp	6.724		Crippen Method
mcvol	259.230	ml/mol	McGowan Method
pc	1487.29	kPa	Joback Method
rinpol	2069.00		NIST Webbook
rinpol	2069.00		NIST Webbook
tb	746.86	K	Joback Method
tc	971.85	K	Joback Method
tf	371.83	K	Joback Method
vc	0.978	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	745.82	J/mol×K	746.86	Joback Method
cpg	766.09	J/mol×K	784.36	Joback Method
cpg	785.00	J/mol×K	821.86	Joback Method
cpg	802.60	J/mol×K	859.35	Joback Method
cpg	818.97	J/mol×K	896.85	Joback Method
cpg	834.17	J/mol×K	934.35	Joback Method
cpg	848.27	J/mol×K	971.85	Joback Method
dvisc	0.0015830	Pa×s	371.83	Joback Method

dvisc	0.0006464	Pa×s	434.34	Joback Method
dvisc	0.0003306	Pa×s	496.84	Joback Method
dvisc	0.0001965	Pa×s	559.35	Joback Method
dvisc	0.0001296	Pa×s	621.85	Joback Method
dvisc	0.0000923	Pa×s	684.36	Joback Method
dvisc	0.0000695	Pa×s	746.86	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R146291&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume