1,1':3',1''-Terphenyl, 4,4''-dimethyl-5'-(4-methylphenyl)-

Other names: 1,3,5-Tris(4-methylphenyl)benzene
1,3,5-Tris-p-tolylbenzene
Inchi: InChI=1S/C27H24/c1-19-4-10-22(11-5-19)25-16-26(23-12-6-20(2)7-13-23)18-27(17-25)2
InchiKey: XMGRUKCVUYLTKU-UHFFFAOYSA-N
Formula: C27H24
SMILES: Cc1ccc(-c2cc(-c3ccc(C)cc3)cc(-c3ccc(C)cc3)c2)cc1
Mol. weight [g/mol]: 348.48
CAS: 50446-43-0

Physical Properties

Property code	Value	Unit	Source
gf	577.95	kJ/mol	Joback Method
hf	288.16	kJ/mol	Joback Method
hfus	39.90	kJ/mol	Joback Method
hvap	88.11	kJ/mol	Joback Method
log10ws	-10.71		Crippen Method
logp	7.613		Crippen Method
mcvol	296.250	ml/mol	McGowan Method
pc	1524.69	kPa	Joback Method
tb	948.78	K	Joback Method
tc	1214.40	K	Joback Method
tf	562.33	K	Joback Method
vc	1.115	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	904.07	J/mol×K	948.78	Joback Method
cpg	920.53	J/mol×K	993.05	Joback Method
cpg	935.52	J/mol×K	1037.32	Joback Method
cpg	949.17	J/mol×K	1081.59	Joback Method
cpg	961.63	J/mol×K	1125.86	Joback Method
cpg	973.07	J/mol×K	1170.13	Joback Method
cpg	983.63	J/mol×K	1214.40	Joback Method

dvisc	0.0003449	Pa×s	562.33	Joback Method
dvisc	0.0002094	Pa×s	626.74	Joback Method
dvisc	0.0001395	Pa×s	691.15	Joback Method
dvisc	0.0000996	Pa×s	755.56	Joback Method
dvisc	0.0000750	Pa×s	819.96	Joback Method
dvisc	0.0000589	Pa×s	884.37	Joback Method
dvisc	0.0000477	Pa×s	948.78	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C50446430&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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