1,1':2',1''-Terphenyl, 4'-phenyl-

Other names:	1,2,4-Triphenylbenzene m-Terphenyl, 4'-phenyl- Benzene, 1,2,4-triphenyl- 1,1':4',1''-Terphenyl, 2'-phenyl- o-Terphenyl, 4'-phenyl 1,3,4-Triphenylbenzene
Inchi:	InChI=1S/C24H18/c1-4-10-19(11-5-1)22-16-17-23(20-12-6-2-7-13-20)24(18-22)21-14-8-3
InchiKey:	XXCVBOQRPQKVKY-UHFFFAOYSA-N
Formula:	C24H18
SMILES:	c1ccc(-c2ccc(-c3ccccc3)c(-c3ccccc3)c2)cc1
Mol. weight [g/mol]:	306.40
CAS:	1165-53-3

Physical Properties

Property code	Value	Unit	Source
gf	581.58	kJ/mol	Joback Method
hf	384.49	kJ/mol	Joback Method
hfus	33.30	kJ/mol	Joback Method
hvap	79.45	kJ/mol	Joback Method
log10ws	-9.28		Crippen Method
logp	6.688		Crippen Method
mcvol	253.980	ml/mol	McGowan Method
pc	2014.51	kPa	Joback Method
rinpol	2853.00		NIST Webbook
rinpol	2853.00		NIST Webbook
tb	865.20	K	Joback Method
tc	1146.33	K	Joback Method
tf	370.00 ± 3.00	K	NIST Webbook
vc	0.948	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	732.93	J/mol×K	865.20	Joback Method

cpg	749.87	J/mol×K	912.06	Joback Method
cpg	765.15	J/mol×K	958.91	Joback Method
cpg	778.96	J/mol×K	1005.77	Joback Method
cpg	791.51	J/mol×K	1052.62	Joback Method
cpg	803.00	J/mol×K	1099.48	Joback Method
cpg	813.64	J/mol×K	1146.33	Joback Method
dvisc	0.0006475	Pa×s	490.96	Joback Method
dvisc	0.0003563	Pa×s	553.33	Joback Method
dvisc	0.0002213	Pa×s	615.71	Joback Method
dvisc	0.0001500	Pa×s	678.08	Joback Method
dvisc	0.0001086	Pa×s	740.45	Joback Method
dvisc	0.0000827	Pa×s	802.83	Joback Method
dvisc	0.0000654	Pa×s	865.20	Joback Method

Sources

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=C1165533&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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

Latest version available from:

https://www.chemeo.com/cid/35-071-4/1-1-2-1-Terphenyl-4-phenyl.pdf

Generated by Cheméo on 2024-10-12 07:30:17.890135257 +0000 UTC m=+3299080.527104548.

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.