

3,3',4,4'-Tetramethyldiphenylmethane

Inchi:	InChI=1S/C17H20/c1-12-5-7-16(9-14(12)3)11-17-8-6-13(2)15(4)10-17/h5-10H,11H2,1-4H
InchiKey:	TWNICQBDBDUTPA-UHFFFAOYSA-N
Formula:	C17H20
SMILES:	<chem>Cc1ccc(Cc2ccc(C)c(C)c2)cc1C</chem>
Mol. weight [g/mol]:	224.34

Physical Properties

Property code	Value	Unit	Source
gf	278.56	kJ/mol	Joback Method
hf	32.97	kJ/mol	Joback Method
hfus	26.31	kJ/mol	Joback Method
hvap	60.64	kJ/mol	Joback Method
log10ws	-5.48		Crippen Method
logp	4.511		Crippen Method
mvol	202.870	ml/mol	McGowan Method
pc	1978.82	kPa	Joback Method
rinpol	1868.00		NIST Webbook
rinpol	1863.00		NIST Webbook
tb	661.64	K	Joback Method
tc	890.84	K	Joback Method
tf	384.27	K	Joback Method
vc	0.771	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	522.98	J/molxK	661.64	Joback Method
cpg	541.11	J/molxK	699.84	Joback Method
cpg	558.09	J/molxK	738.04	Joback Method
cpg	573.96	J/molxK	776.24	Joback Method
cpg	588.77	J/molxK	814.44	Joback Method
cpg	602.56	J/molxK	852.64	Joback Method
cpg	615.39	J/molxK	890.84	Joback Method
dvisc	0.0009211	Paxs	384.27	Joback Method

dvisc	0.0005612	Paxs	430.50	Joback Method
dvisc	0.0003764	Paxs	476.73	Joback Method
dvisc	0.0002710	Paxs	522.95	Joback Method
dvisc	0.0002057	Paxs	569.18	Joback Method
dvisc	0.0001628	Paxs	615.41	Joback Method
dvisc	0.0001331	Paxs	661.64	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R520604&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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