Benzene, 1,1'-(1,2-ethanediyl)bis[4-methyl-

Other names:	Bibenzyl, 4,4'-dimethyl-
	«alpha»,«beta»-Di-p-tolylethane
	p,p'-Dimethylbibenzyl
	sym-Di-p-tolylethane
	1,2-Di-p-tolylethane
	4,4'-Dimethylbibenzyl
	4,4'-Dimethyldibenzyl
	1,2-di-para-Tolylethane
	1,2-Di(p-methylphenyl)ethane
	1,2-Bis(p-methylphenyl)ethane
Inchi:	InChI=1S/C16H18/c1-13-3-7-15(8-4-13)11-12-16-9-5-14(2)6-10-16/h3-10H,11-12H2,1-2H
InchiKey:	XCCQFUHBIRHLQT-UHFFFAOYSA-N
Formula:	C16H18
SMILES:	Cc1ccc(CCc2ccc(C)cc2)cc1
Mol. weight [g/mol]:	210.31
CAS:	538-39-6

Physical Properties

Property code	Value	Unit	Source
chs	-8826.50 ± 2.00	kJ/mol	NIST Webbook
gf	289.40	kJ/mol	Joback Method
hf	76.55	kJ/mol	Joback Method
hfus	24.50	kJ/mol	Joback Method
hvap	57.09	kJ/mol	Joback Method
log10ws	-4.84		Crippen Method
logp	4.089		Crippen Method
mcvol	188.780	ml/mol	McGowan Method
pc	2220.80	kPa	Joback Method
tb	628.80	K	Joback Method
tc	860.73	K	Joback Method
tf	357.00 ± 4.00	K	NIST Webbook
tf	355.00 ± 0.40	K	NIST Webbook
tf	354.00 ± 3.00	K	NIST Webbook
vc	0.716	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	471.73	J/mol×K	628.80	Joback Method
cpg	489.89	J/mol×K	667.45	Joback Method
cpg	506.82	J/mol×K	706.11	Joback Method
cpg	522.58	J/mol×K	744.76	Joback Method
cpg	537.22	J/mol×K	783.42	Joback Method
cpg	550.82	J/mol×K	822.07	Joback Method
cpg	563.43	J/mol×K	860.73	Joback Method
dvisc	0.0014473	Pa×s	347.96	Joback Method
dvisc	0.0007888	Pa×s	394.77	Joback Method
dvisc	0.0004889	Pa×s	441.57	Joback Method
dvisc	0.0003321	Pa×s	488.38	Joback Method
dvisc	0.0002414	Pa×s	535.19	Joback Method
dvisc	0.0001847	Pa×s	581.99	Joback Method
dvisc	0.0001471	Pa×s	628.80	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	451.20	K	2.40	NIST Webbook

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C538396&Units=SI

Legend

chs:	Standard solid enthalpy of combustion
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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume