Benzene, 1,1'-ethylidenebis[3,4-dimethyl-

Other names:	Ethane, 1,1-di-3,4-xylyl-
	1,1-Bis(3,4-dimethylphenyl)ethane
	1,1-Di-3,4-xylylethane
	Benzene, 1,1'-ethylidenebis*3,4-dimethyl-
	«alpha»-(3,4-dimethylphenyl)-«alpha»-methyl-3,4-dimethyltoluene
Inchi:	InChI=1S/C18H22/c1-12-6-8-17(10-14(12)3)16(5)18-9-7-13(2)15(4)11-18/h6-11,16H,1-5
InchiKey:	NCSVCMFDHINRJE-UHFFFAOYSA-N
Formula:	C18H22
SMILES:	Cc1ccc(C(C)c2ccc(C)c(C)c2)cc1C
Mol. weight [g/mol]:	238.37
CAS:	1742-14-9

Physical Properties

Property code	Value	Unit	Source
gf	284.54	kJ/mol	Joback Method
hf	7.05	kJ/mol	Joback Method
hfus	25.38	kJ/mol	Joback Method
hvap	62.47	kJ/mol	Joback Method
log10ws	-5.86		Crippen Method
logp	5.072		Crippen Method
mcvol	216.960	ml/mol	McGowan Method
pc	1832.54	kPa	Joback Method
tb	684.08	K	Joback Method
tc	913.45	K	Joback Method
tf	380.54	K	Joback Method
vc	0.822	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	576.92	J/mol×K	684.08	Joback Method
cpg	595.78	J/mol×K	722.31	Joback Method
cpg	613.43	J/mol×K	760.54	Joback Method
cpg	629.90	J/mol×K	798.77	Joback Method

cpg	645.24	J/mol×K	837.00	Joback Method
cpg	659.52	J/mol×K	875.22	Joback Method
cpg	672.77	J/mol×K	913.45	Joback Method
dvisc	0.0010382	Pa×s	380.54	Joback Method
dvisc	0.0005770	Pa×s	431.13	Joback Method
dvisc	0.0003628	Pa×s	481.72	Joback Method
dvisc	0.0002491	Pa×s	532.31	Joback Method
dvisc	0.0001826	Pa×s	582.90	Joback Method
dvisc	0.0001407	Pa×s	633.49	Joback Method
dvisc	0.0001126	Pa×s	684.08	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	446.70	K	0.70	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=C1742149&Units=SI

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume