Benzene, 1,5-dimethyl-2,4-bis(1-methylethyl)-

Other names:	m-Xylene, 4,6-diisopropyl- 1,3-Dimethyl-4,6-diisopropylbenzene 4,6-Diisopropyl-m-xylene 4,6-Diisopropyl-1,3-dimethylbenzene 1,5-Dimethyl-2,4-diisopropylbenzene
Inchi:	InChI=1S/C14H22/c1-9(2)13-8-14(10(3)4)12(6)7-11(13)5/h7-10H,1-6H3
InchiKey:	PUPZFBLFGPJICA-UHFFFAOYSA-N
Formula:	C14H22
SMILES:	Cc1cc(C)c(C(C)C)cc1C(C)C
Mol. weight [g/mol]:	190.32
CAS:	5186-68-5

Physical Properties

Property code	Value	Unit	Source
gf	145.64	kJ/mol	Joback Method
hf	-140.73	kJ/mol	Joback Method
hfus	17.84	kJ/mol	Joback Method
hvap	50.24	kJ/mol	Joback Method
log10ws	-4.79		Crippen Method
logp	4.550		Crippen Method
mcvol	184.360	ml/mol	McGowan Method
pc	1957.87	kPa	Joback Method
ripol	1568.00		NIST Webbook
ripol	1579.00		NIST Webbook
ripol	1559.00		NIST Webbook
ripol	1552.00		NIST Webbook
ripol	1551.00		NIST Webbook
tb	560.46	K	Joback Method
tc	765.83	K	Joback Method
tf	281.52	K	Joback Method
vc	0.700	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	443.88	J/mol×K	560.46	Joback Method
cpg	462.03	J/mol×K	594.69	Joback Method
cpg	479.27	J/mol×K	628.92	Joback Method
cpg	495.64	J/mol×K	663.14	Joback Method
cpg	511.14	J/mol×K	697.37	Joback Method
cpg	525.82	J/mol×K	731.60	Joback Method
cpg	539.70	J/mol×K	765.83	Joback Method
dvisc	0.0024229	Pa×s	281.52	Joback Method
dvisc	0.0010915	Pa×s	328.01	Joback Method
dvisc	0.0005993	Pa×s	374.50	Joback Method
dvisc	0.0003757	Pa×s	420.99	Joback Method
dvisc	0.0002584	Pa×s	467.48	Joback Method
dvisc	0.0001902	Pa×s	513.97	Joback Method
dvisc	0.0001473	Pa×s	560.46	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C5186685&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

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
ripol: Polar retention indices
tb: Normal Boiling Point Temperature

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume