Benzene, 1-(1,1-dimethylethyl)-4-(2-methylpropyl)

Inchi: InChI=1S/C14H22/c1-11(2)10-12-6-8-13(9-7-12)14(3,4)5/h6-9,11H,10H2,1-5H3
InchiKey: BNMPTGXSMLHHNS-UHFFFAOYSA-N
Formula: C14H22
SMILES: CC(C)Cc1ccc(C(C)(C)C)cc1
Mol. weight [g/mol]: 190.32

Physical Properties

Property code	Value	Unit	Source
gf	170.18	kJ/mol	Joback Method
hf	-121.26	kJ/mol	Joback Method
hfus	14.73	kJ/mol	Joback Method
hvap	48.01	kJ/mol	Joback Method
log10ws	-4.18		Crippen Method
logp	4.183		Crippen Method
mcvol	184.360	ml/mol	McGowan Method
pc	2030.89	kPa	Joback Method
rinpol	1291.00		NIST Webbook
ripol	1484.00		NIST Webbook
ripol	1484.00		NIST Webbook
ripol	1491.20		NIST Webbook
tb	547.71	K	Joback Method
tc	759.05	K	Joback Method
tf	273.90	K	Joback Method
vc	0.695	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	445.61	J/mol×K	547.71	Joback Method
cpg	465.11	J/mol×K	582.93	Joback Method
cpg	483.43	J/mol×K	618.16	Joback Method
cpg	500.62	J/mol×K	653.38	Joback Method
cpg	516.73	J/mol×K	688.60	Joback Method
cpg	531.84	J/mol×K	723.83	Joback Method

cpg	546.00	J/mol×K	759.05	Joback Method
dvisc	0.0047967	Pa×s	273.90	Joback Method
dvisc	0.0017911	Pa×s	319.54	Joback Method
dvisc	0.0008556	Pa×s	365.17	Joback Method
dvisc	0.0004816	Pa×s	410.81	Joback Method
dvisc	0.0003041	Pa×s	456.44	Joback Method
dvisc	0.0002087	Pa×s	502.08	Joback Method
dvisc	0.0001526	Pa×s	547.71	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R12494&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
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume