Benzene, 1,2,3,5-tetramethyl-4-(1-methylethyl)

Inchi: InChI=1S/C13H20/c1-8(2)13-10(4)7-9(3)11(5)12(13)6/h7-8H,1-6H3
InchiKey: GNMPAJFUVPIAQD-UHFFFAOYSA-N
Formula: C13H20
SMILES: Cc1cc(C)c(C(C)C)c(C)c1C
Mol. weight [g/mol]: 176.30

Physical Properties

Property code	Value	Unit	Source
gf	130.03	kJ/mol	Joback Method
hf	-126.28	kJ/mol	Joback Method
hfus	18.39	kJ/mol	Joback Method
hvap	49.07	kJ/mol	Joback Method
log10ws	-4.56		Crippen Method
logp	4.044		Crippen Method
mcvol	170.270	ml/mol	McGowan Method
pc	2090.75	kPa	Joback Method
rinpol	1374.00		NIST Webbook
tb	543.00	K	Joback Method
tc	748.22	K	Joback Method
tf	297.77	K	Joback Method
vc	0.649	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	395.00	J/mol×K	543.00	Joback Method
cpg	471.08	J/mol×K	714.02	Joback Method
cpg	457.34	J/mol×K	679.81	Joback Method
cpg	442.88	J/mol×K	645.61	Joback Method
cpg	427.68	J/mol×K	611.41	Joback Method
cpg	411.72	J/mol×K	577.20	Joback Method
cpg	484.11	J/mol×K	748.22	Joback Method
dvisc	0.0001634	Pa×s	543.00	Joback Method
dvisc	0.0002016	Pa×s	502.13	Joback Method

dvisc	0.0002581	Pa×s	461.26	Joback Method
dvisc	0.0003468	Pa×s	420.38	Joback Method
dvisc	0.0004965	Pa×s	379.51	Joback Method
dvisc	0.0007751	Pa×s	338.64	Joback Method
dvisc	0.0013675	Pa×s	297.77	Joback Method

Sources

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=R550051&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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