Benzene, 1-methyl-4-(4-methyl-4-pentenyl)-

Other names: 1-methyl-4-(4-methyl-4-pentenyl)benzene
Inchi: InChI=1S/C13H18/c1-11(2)5-4-6-13-9-7-12(3)8-10-13/h7-10H,1,4-6H2,2-3H3
InchiKey: FWKCKIWOJXTRFG-UHFFFAOYSA-N
Formula: C13H18
SMILES: C=C(C)CCCc1ccc(C)cc1
Mol. weight [g/mol]: 174.28
CAS: 74672-08-5

Physical Properties

Property code	Value	Unit	Source
gf	240.65	kJ/mol	Joback Method
hf	29.05	kJ/mol	Joback Method
hfus	20.49	kJ/mol	Joback Method
hvap	46.88	kJ/mol	Joback Method
log10ws	-4.28		Crippen Method
logp	3.894		Crippen Method
mcvol	165.970	ml/mol	McGowan Method
pc	2261.11	kPa	Joback Method
tb	525.06	K	Joback Method
tc	730.56	K	Joback Method
tf	259.49	K	Joback Method
vc	0.637	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	374.19	J/mol×K	525.06	Joback Method
cpg	391.14	J/mol×K	559.31	Joback Method
cpg	407.16	J/mol×K	593.56	Joback Method
cpg	422.27	J/mol×K	627.81	Joback Method
cpg	436.53	J/mol×K	662.06	Joback Method
cpg	449.98	J/mol×K	696.31	Joback Method
cpg	462.64	J/mol×K	730.56	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=C74672085&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume