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

Other names: 1-Isobutyl-4-vinylbenzene
Inchi: InChI=1S/C12H16/c1-4-11-5-7-12(8-6-11)9-10(2)3/h4-8,10H,1,9H2,2-3H3
InchiKey: VTMSSJKVUVVWNJ-UHFFFAOYSA-N
Formula: C12H16
SMILES: C=Cc1ccc(CC(C)C)cc1
Mol. weight [g/mol]: 160.26
CAS: 63444-56-4

Physical Properties

Property code	Value	Unit	Source
gf	238.34	kJ/mol	Joback Method
hf	54.20	kJ/mol	Joback Method
hfus	15.68	kJ/mol	Joback Method
hvap	44.19	kJ/mol	Joback Method
log10ws	-3.69		Crippen Method
logp	3.528		Crippen Method
mcvol	151.880	ml/mol	McGowan Method
pc	2490.03	kPa	Joback Method
rinpol	1228.00		NIST Webbook
tb	501.86	K	Joback Method
tc	711.20	K	Joback Method
tf	247.18	K	Joback Method
vc	0.575	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	328.09	J/mol×K	501.86	Joback Method
cpg	401.03	J/mol×K	676.31	Joback Method
cpg	388.14	J/mol×K	641.42	Joback Method
cpg	374.43	J/mol×K	606.53	Joback Method
cpg	359.89	J/mol×K	571.64	Joback Method
cpg	344.45	J/mol×K	536.75	Joback Method
cpg	413.15	J/mol×K	711.20	Joback Method

dvisc	0.0001916	Pa×s	501.86	Joback Method
dvisc	0.0002477	Pa×s	459.41	Joback Method
dvisc	0.0003374	Pa×s	416.97	Joback Method
dvisc	0.0004930	Pa×s	374.52	Joback Method
dvisc	0.0007937	Pa×s	332.07	Joback Method
dvisc	0.0014692	Pa×s	289.63	Joback Method
dvisc	0.0033600	Pa×s	247.18	Joback Method

Sources

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=C63444564&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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