Benzene, (1-methoxy-1-methylethyl)-

Other names:	Ether, «alpha»,«alpha»-dimethylbenzyl methyl
	«alpha»,«alpha»-Dimethylbenzyl methyl ether
	Methyl cumyl ether
	2-Methoxy-2-phenylpropane
	(1-methoxy-1-methylethyl)benzene
Inchi:	InChI=1S/C10H14O/c1-10(2,11-3)9-7-5-4-6-8-9/h4-8H,1-3H3
InchiKey:	MRFQFQYRTNGOCZ-UHFFFAOYSA-N
Formula:	C10H14O
SMILES:	COC(C)(C)c1ccccc1
Mol. weight [g/mol]:	150.22
CAS:	935-67-1

Physical Properties

Property code	Value	Unit	Source
gf	43.57	kJ/mol	Joback Method
hf	-154.17	kJ/mol	Joback Method
hfus	9.47	kJ/mol	Joback Method
hvap	41.24	kJ/mol	Joback Method
log10ws	-2.37		Crippen Method
logp	2.568		Crippen Method
mcvol	133.870	ml/mol	McGowan Method
pc	2937.70	kPa	Joback Method
tb	474.07	K	Joback Method
tc	690.87	K	Joback Method
tf	253.53	K	Joback Method
vc	0.494	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	283.83	J/mol×K	474.07	Joback Method
cpg	299.88	J/mol×K	510.20	Joback Method
cpg	314.94	J/mol×K	546.34	Joback Method
cpg	329.04	J/mol×K	582.47	Joback Method

cpg	342.23	J/mol×K	618.60	Joback Method
cpg	354.55	J/mol×K	654.73	Joback Method
cpg	366.04	J/mol×K	690.87	Joback Method
dvisc	0.0039926	Pa×s	253.53	Joback Method
dvisc	0.0017530	Pa×s	290.29	Joback Method
dvisc	0.0009261	Pa×s	327.04	Joback Method
dvisc	0.0005566	Pa×s	363.80	Joback Method
dvisc	0.0003673	Pa×s	400.56	Joback Method
dvisc	0.0002599	Pa×s	437.31	Joback Method
dvisc	0.0001940	Pa×s	474.07	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=C935671&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume