1-Propene, 3-methoxy-2-methyl-

Other names:	1-Methoxy-2-methyl-2-propene
	3-Methoxy-2-methyl-1-propene
	Ether, methyl 2-methylallyl
	Methallyl methyl ether
	Methyl 2-methylallyl ether
	«beta»-Methylallyl methyl ether
	Â«betaÂ»-Methylallyl methyl ether
Inchi:	InChI=1S/C5H10O/c1-5(2)4-6-3/h1,4H2,2-3H3
InchiKey:	IFUHHVOEHBXDPB-UHFFFAOYSA-N
Formula:	C5H10O
SMILES:	C=C(C)COC
Mol. weight [g/mol]:	86.13
CAS:	22418-49-1

Physical Properties

Property code	Value	Unit	Source
gf	-34.49	kJ/mol	Joback Method
hf	-163.11	kJ/mol	Joback Method
hfus	7.30	kJ/mol	Joback Method
hvap	28.54	kJ/mol	Joback Method
log10ws	-0.86		Crippen Method
logp	1.209		Crippen Method
mcvol	82.880	ml/mol	McGowan Method
pc	3594.25	kPa	Joback Method
tb	332.78	K	Joback Method
tc	503.98	K	Joback Method
tf	152.62	K	Joback Method
vc	0.316	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	135.27	J/mol×K	332.78	Joback Method
cpg	143.47	J/mol×K	361.31	Joback Method

cpg	151.43	J/mol×K	389.85	Joback Method
cpg	159.15	J/mol×K	418.38	Joback Method
cpg	166.63	J/mol×K	446.91	Joback Method
cpg	173.87	J/mol×K	475.44	Joback Method
cpg	180.88	J/mol×K	503.98	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.55372e+01
Coeff. B	-3.31540e+03
Coeff. C	-3.57120e+01
Temperature range (K), min.	253.12
Temperature range (K), max.	359.93

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=C22418491&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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

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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume