1-Propene, 3-methoxy-

Other names:	1-Methoxy-2-propene
	3-Methoxy-1-propene
	3-Methoxypropene
	4-Oxapent-1-ene
	Allyl methyl ether
	CH2=CHCH2OCH3
	Ether, allyl methyl
	Methyl 2-propenyl ether
	Methyl allyl ether
Inchi:	InChI=1S/C4H8O/c1-3-4-5-2/h3H,1,4H2,2H3
InchiKey:	FASUFOTUSHAIHG-UHFFFAOYSA-N
Formula:	C4H8O
SMILES:	C=CCOC
Mol. weight [g/mol]:	72.11
CAS:	627-40-7

Physical Properties

Property code	Value	Unit	Source
gf	-34.36	kJ/mol	Joback Method
hf	-132.68	kJ/mol	Joback Method
hfus	6.02	kJ/mol	Joback Method
hvap	26.24	kJ/mol	Joback Method
ie	9.56	eV	NIST Webbook
ie	9.84 ± 0.05	eV	NIST Webbook
log10ws	-0.44		Crippen Method
logp	0.819		Crippen Method
mcvol	68.790	ml/mol	McGowan Method
pc	4021.02	kPa	Joback Method
rinpol	529.00		NIST Webbook
rinpol	529.00		NIST Webbook
tb	319.15 ± 2.00	K	NIST Webbook
tb	319.20	K	NIST Webbook
tb	320.00 ± 3.00	K	NIST Webbook
tc	477.00	K	Joback Method
tf	155.31	K	Joback Method
vc	0.259	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	104.77	J/mol×K	310.02	Joback Method
cpg	111.22	J/mol×K	337.85	Joback Method
cpg	117.51	J/mol×K	365.68	Joback Method
cpg	123.63	J/mol×K	393.51	Joback Method
cpg	129.59	J/mol×K	421.34	Joback Method
cpg	135.37	J/mol×K	449.17	Joback Method
cpg	141.00	J/mol×K	477.00	Joback Method
dvisc	0.0019925	Pa×s	155.31	Joback Method
dvisc	0.0010073	Pa×s	181.09	Joback Method
dvisc	0.0006037	Pa×s	206.88	Joback Method
dvisc	0.0004052	Pa×s	232.66	Joback Method
dvisc	0.0002945	Pa×s	258.45	Joback Method
dvisc	0.0002268	Pa×s	284.24	Joback Method
dvisc	0.0001825	Pa×s	310.02	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.64842e+01
Coeff. B	-3.32682e+03
Coeff. C	-2.93180e+01
Temperature range (K), min.	234.72
Temperature range (K), max.	327.08

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C627407&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
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume