Propane, 1-(ethenyloxy)-2-methyl-

Other names:	1-(Ethenyloxy)-2-methylpropane
	1-(Vinyloxy)-2-methyl-propane
	2-Methyl-1-vinyloxypropane
	Ether, isobutyl vinyl
	IVE
	Isobutanol vinyl ether
	Isobutoxyethene
	Isobutyl vinyl ether
	Lutanol LR 8500
	NSC 8265
	Vinoflex MO 400
	Vinyl isobutyl ether
Inchi:	InChI=1S/C6H12O/c1-4-7-5-6(2)3/h4,6H,1,5H2,2-3H3
InchiKey:	OZCMOJQQLBXBKI-UHFFFAOYSA-N
Formula:	C6H12O
SMILES:	C=COCC(C)C
Mol. weight [g/mol]:	100.16
CAS:	109-53-5

Physical Properties

Property code	Value	Unit	Source
chl	-3818.00 ± 11.00	kJ/mol	NIST Webbook
gf	-19.96	kJ/mol	Joback Method
hf	-179.24	kJ/mol	Joback Method
hfus	7.68	kJ/mol	Joback Method
hvap	34.56	kJ/mol	NIST Webbook
log10ws	-1.53		Crippen Method
logp	1.802		Crippen Method
mcvol	96.970	ml/mol	McGowan Method
pc	3224.64	kPa	Joback Method
rinpol	634.00		NIST Webbook
rinpol	655.00		NIST Webbook
rinpol	633.00		NIST Webbook
rinpol	655.00		NIST Webbook
ripol	800.00		NIST Webbook
tb	355.40	K	NIST Webbook
tb	356.20	K	NIST Webbook

tc	527.27	K	Joback Method
tf	162.85	K	Joback Method
vc	0.364	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	168.21	J/mol×K	355.34	Joback Method
cpg	178.09	J/mol×K	384.00	Joback Method
cpg	187.66	J/mol×K	412.65	Joback Method
cpg	196.91	J/mol×K	441.31	Joback Method
cpg	205.85	J/mol×K	469.96	Joback Method
cpg	214.48	J/mol×K	498.62	Joback Method
cpg	222.82	J/mol×K	527.27	Joback Method
cpl	231.80	J/mol×K	298.15	NIST Webbook
dvisc	0.0052219	Pa×s	162.85	Joback Method
dvisc	0.0019589	Pa×s	194.93	Joback Method
dvisc	0.0009695	Pa×s	227.01	Joback Method
dvisc	0.0005712	Pa×s	259.09	Joback Method
dvisc	0.0003781	Pa×s	291.18	Joback Method
dvisc	0.0002716	Pa×s	323.26	Joback Method
dvisc	0.0002072	Pa×s	355.34	Joback Method
hvapt	30.70	kJ/mol	355.40	NIST Webbook
hvapt	37.40	kJ/mol	311.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.54480e+01
Coeff. B	-3.42263e+03
Coeff. C	-4.01600e+01
Temperature range (K), min.	265.92
Temperature range (K), max.	377.81

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=C109535&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

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase 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
hvapt:	Enthalpy of vaporization at a given temperature
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume