

1-Propene, 3-(ethenyloxy)-

Other names:	Allyl vinyl ether Ether, allyl vinyl Vinyl allyl ether
Inchi:	InChI=1S/C5H8O/c1-3-5-6-4-2/h3-4H,1-2,5H2
InchiKey:	ZXABMDQSAABDMG-UHFFFAOYSA-N
Formula:	C5H8O
SMILES:	C=CCOC=C
Mol. weight [g/mol]:	84.12
CAS:	3917-15-5

Physical Properties

Property code	Value	Unit	Source
gf	61.90	kJ/mol	Joback Method
hf	-27.89	kJ/mol	Joback Method
hfus	7.33	kJ/mol	Joback Method
hvap	27.79	kJ/mol	Joback Method
log10ws	-1.21		Crippen Method
logp	1.333		Crippen Method
mcvol	78.580	ml/mol	McGowan Method
pc	3759.17	kPa	Joback Method
rinpol	864.00		NIST Webbook
rinpol	864.00		NIST Webbook
ripol	1344.00		NIST Webbook
ripol	1344.00		NIST Webbook
tb	329.58	K	Joback Method
tc	500.82	K	Joback Method
tf	168.70 ± 0.60	K	NIST Webbook
vc	0.295	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	122.79	J/molxK	329.58	Joback Method
cpg	130.20	J/molxK	358.12	Joback Method

cpg	137.37	J/mol×K	386.66	Joback Method
cpg	144.29	J/mol×K	415.20	Joback Method
cpg	150.97	J/mol×K	443.74	Joback Method
cpg	157.41	J/mol×K	472.28	Joback Method
cpg	163.62	J/mol×K	500.82	Joback Method
dvisc	0.0019759	Paxs	164.82	Joback Method
dvisc	0.0010113	Paxs	192.28	Joback Method
dvisc	0.0006119	Paxs	219.74	Joback Method
dvisc	0.0004140	Paxs	247.20	Joback Method
dvisc	0.0003028	Paxs	274.66	Joback Method
dvisc	0.0002345	Paxs	302.12	Joback Method
dvisc	0.0001895	Paxs	329.58	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.74687e+01
Coeff. B	-4.23983e+03
Coeff. C	-9.21100e+00
Temperature range (K), min.	255.98
Temperature range (K), max.	357.96

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3917155&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

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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpolar:	Non-polar retention indices
ripolar:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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