Ethanol, 2-(2-propenyloxy)-

Other names:	Ethanol, 2-(allyloxy)-
	Allyl glycol
	Allyl cellosolve
	Ethylene glycol monoallyl ether
	2-(Allyloxy)ethanol
	Allyl 2-hydroxyethyl ether
	USAF DO-47
	2-Alloxyethanol
	2-(2-Propenyloxy)ethanol
	Ethanol, 2-(2-propen-1-yloxy)-
	NSC 32614
Inchi:	InChI=1S/C5H10O2/c1-2-4-7-5-3-6/h2,6H,1,3-5H2
InchiKey:	GCYHRYNSUGLLMA-UHFFFAOYSA-N
Formula:	C5H10O2
SMILES:	C=CCOCCO
Mol. weight [g/mol]:	102.13
CAS:	111-45-5

Physical Properties

Property code	Value	Unit	Source
gf	-162.76	kJ/mol	Joback Method
hf	-305.55	kJ/mol	Joback Method
hfus	12.70	kJ/mol	Joback Method
hvap	45.14	kJ/mol	Joback Method
log10ws	-0.12		Crippen Method
logp	0.181		Crippen Method
mcvol	88.750	ml/mol	McGowan Method
pc	4000.70	kPa	Joback Method
rinpol	766.00		NIST Webbook
rinpol	766.00		NIST Webbook
rinpol	771.00		NIST Webbook
tb	431.70	K	NIST Webbook
tc	590.17	K	Joback Method
tf	227.40	K	Joback Method
vc	0.334	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	175.93	J/mol×K	425.08	Joback Method
cpg	211.24	J/mol×K	562.65	Joback Method
cpg	204.66	J/mol×K	535.14	Joback Method
cpg	197.84	J/mol×K	507.62	Joback Method
cpg	190.78	J/mol×K	480.11	Joback Method
cpg	183.47	J/mol×K	452.59	Joback Method
cpg	217.58	J/mol×K	590.17	Joback Method
dvisc	0.0002295	Pa×s	425.08	Joback Method
dvisc	0.0003805	Pa×s	392.13	Joback Method
dvisc	0.0006921	Pa×s	359.19	Joback Method
dvisc	0.0014207	Pa×s	326.24	Joback Method
dvisc	0.0034276	Pa×s	293.29	Joback Method
dvisc	0.0103343	Pa×s	260.35	Joback Method
dvisc	0.0429002	Pa×s	227.40	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C111455&Units=SI
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
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient

mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume