2-Propanol, 1-ethoxy-

Other names:	1-Ethoxy-2-propanol
	1-ethoxypropan-2-ol
	Propylene glycol ethyl ether
Inchi:	InChI=1S/C5H12O2/c1-3-7-4-5(2)6/h5-6H,3-4H2,1-2H3
InchiKey:	JOLQKTGDSGKSKJ-UHFFFAOYSA-N
Formula:	C5H12O2
SMILES:	CCOCC(C)O
Mol. weight [g/mol]:	104.15
CAS:	1569-02-4

Physical Properties

Property code	Value	Unit	Source
gf	-253.04	kJ/mol	Joback Method
hf	-436.26	kJ/mol	Joback Method
hfus	10.46	kJ/mol	Joback Method
hvap	45.42	kJ/mol	Joback Method
log10ws	-0.38		Crippen Method
logp	0.404		Crippen Method
mcvol	93.050	ml/mol	McGowan Method
pc	3834.03	kPa	Joback Method
rinpol	750.00		NIST Webbook
rinpol	738.00		NIST Webbook
tb	405.04	K	Separation of the mixture (isopropyl alcohol + diisopropyl ether + n-propanol): Entrainer selection, interaction exploration and vapour-liquid equilibrium measurements
tc	593.40	K	Joback Method
tf	214.16	K	Joback Method
vc	0.346	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	191.34	J/mol×K	427.96	Joback Method
cpg	199.79	J/mol×K	455.53	Joback Method
cpg	207.98	J/mol×K	483.11	Joback Method
cpg	215.92	J/mol×K	510.68	Joback Method
cpg	223.60	J/mol×K	538.25	Joback Method
cpg	231.03	J/mol×K	565.83	Joback Method
cpg	238.21	J/mol×K	593.40	Joback Method
dvisc	0.0002180	Pa×s	427.96	Joback Method
dvisc	0.0183815	Pa×s	249.79	Joback Method
dvisc	0.1081645	Pa×s	214.16	Joback Method
dvisc	0.0017280	Pa×s	321.06	Joback Method
dvisc	0.0007551	Pa×s	356.69	Joback Method
dvisc	0.0003835	Pa×s	392.33	Joback Method
dvisc	0.0048625	Pa×s	285.43	Joback Method
speedsl	1287.05	m/s	288.15	Densities and Speeds of Sound of Binary Liquid Mixtures of Some n-Alkoxypropanols with Methyl Acetate, Ethyl Acetate, and n-Butyl Acetate at T = (288.15, 293.15, 298.15, 303.15, and 308.15) K
speedsl	1269.02	m/s	293.15	Densities and Speeds of Sound of Binary Liquid Mixtures of Some n-Alkoxypropanols with Methyl Acetate, Ethyl Acetate, and n-Butyl Acetate at T = (288.15, 293.15, 298.15, 303.15, and 308.15) K
speedsl	1250.50	m/s	298.15	Densities and Speeds of Sound of Binary Liquid Mixtures of Some n-Alkoxypropanols with Methyl Acetate, Ethyl Acetate, and n-Butyl Acetate at T = (288.15, 293.15, 298.15, 303.15, and 308.15) K

speedsl	1231.98	m/s	303.15	Densities and Speeds of Sound of Binary Liquid Mixtures of Some n-Alkoxypropanols with Methyl Acetate, Ethyl Acetate, and n-Butyl Acetate at T = (288.15, 293.15, 298.15, 303.15, and 308.15) K
speedsl	1213.53	m/s	308.15	Densities and Speeds of Sound of Binary Liquid Mixtures of Some n-Alkoxypropanols with Methyl Acetate, Ethyl Acetate, and n-Butyl Acetate at T = (288.15, 293.15, 298.15, 303.15, and 308.15) K

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.64047e+01
Coeff. B	-4.12462e+03
Coeff. C	-5.35040e+01
Temperature range (K), min.	309.42
Temperature range (K), max.	425.32

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=C1569024&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

Separation of the mixture (isopropyl alcohol + diisopropyl ether + n-propanol). Entrainer selection, interaction exploration and vapour–liquid equilibrium measurements. https://www.doi.org/10.1016/j.jct.2019.03.018

Densities and Speeds of Sound of Binary Liquid Mixtures of Some 1-Alkoxypropan-2-ols with Methyl Acetate, Ethyl Acetate, and n-Butyl Acetate at T = (288.15, 293.15, 298.15, 303.15, and 308.15) K: https://www.doi.org/10.1021/je300789a

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
speedsl:	Speed of sound in fluid
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume