Propanoic acid, ethyl ester

Other names:	C2H5COOC2H5
	ETHYL ESTER PROPIONIC ACID
	Ethyl ester of propanoic acid
	Ethyl n-propionate
	Ethyl propanoate
	Ethyl propionate
	Ethylester kyseliny propionove
	NSC 8848
	Propionate d'ethyle
	Propionic acid, ethyl ester
	Propionic ester
	Propionic ether
	UN 1195
	n-Ethyl propanoate
Inchi:	InChI=1S/C5H10O2/c1-3-5(6)7-4-2/h3-4H2,1-2H3
InchiKey:	FKRCODPIKNYEAC-UHFFFAOYSA-N
Formula:	C5H10O2
SMILES:	CCOC(=O)CC
Mol. weight [g/mol]:	102.13
CAS:	105-37-3

Physical Properties

Property code	Value	Unit	Source
af	0.3910		KDB
chl	-2912.10 ± 2.00	kJ/mol	NIST Webbook
chl	-2888.00	kJ/mol	NIST Webbook
chl	-2894.00 ± 0.65	kJ/mol	NIST Webbook
dm	1.80	debye	KDB
gf	-323.70	kJ/mol	KDB
hf	-463.60 ± 0.70	kJ/mol	NIST Webbook
hf	-470.20	kJ/mol	KDB
hf	-466.50 ± 0.40	kJ/mol	NIST Webbook
hfl	-502.70 ± 0.70	kJ/mol	NIST Webbook
hfl	-505.59 ± 0.50	kJ/mol	NIST Webbook
hfus	11.49	kJ/mol	Joback Method
hvap	35.88	kJ/mol	Joback Method
ie	10.00 ± 0.02	eV	NIST Webbook

log10ws	-0.66		Estimated Solubility Method
log10ws	-0.66		Aqueous Solubility Prediction Method
logp	0.959		Crippen Method
mcvol	88.750	ml/mol	McGowan Method
nfpaf	%!d(float64=3)		KDB
pc	3359.70 ± 40.00	kPa	NIST Webbook
pc	3385.60	kPa	Development of a Predictive Equation of State for CO2 + Ethyl Ester Mixtures Based on Critical Points Measurements
pc	3510.00 ± 202.65	kPa	NIST Webbook
pc	3362.00	kPa	KDB
pc	3362.00 ± 81.06	kPa	NIST Webbook
pc	3510.00 ± 202.65	kPa	NIST Webbook
rhoc	285.97 ± 10.01	kg/m3	NIST Webbook
rhoc	285.97 ± 10.01	kg/m3	NIST Webbook
rhoc	296.90 ± 4.09	kg/m3	NIST Webbook
rhoc	296.49 ± 10.01	kg/m3	NIST Webbook
rinpol	714.00		NIST Webbook
rinpol	679.00		NIST Webbook
rinpol	691.00		NIST Webbook
rinpol	691.00		NIST Webbook
rinpol	691.00		NIST Webbook
rinpol	693.00		NIST Webbook
rinpol	692.00		NIST Webbook
rinpol	679.00		NIST Webbook
rinpol	695.00		NIST Webbook
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rinpol	695.00		NIST Webbook
rinpol	693.00		NIST Webbook
rinpol	694.00		NIST Webbook
rinpol	663.00		NIST Webbook
rinpol	692.00		NIST Webbook
rinpol	709.00		NIST Webbook
rinpol	709.00		NIST Webbook
rinpol	709.00		NIST Webbook
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rinpol	709.00		NIST Webbook
rinpol	691.00		NIST Webbook
rinpol	714.00		NIST Webbook
rinpol	705.00		NIST Webbook

rinpol	703.00	NIST Webbook
rinpol	708.00	NIST Webbook
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rinpol	707.00	NIST Webbook
rinpol	692.00	NIST Webbook
rinpol	708.00	NIST Webbook
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rinpol	711.00	NIST Webbook
rinpol	712.00	NIST Webbook
rinpol	710.00	NIST Webbook
rinpol	714.00	NIST Webbook
rinpol	714.00	NIST Webbook
rinpol	699.00	NIST Webbook
rinpol	733.00	NIST Webbook
rinpol	726.00	NIST Webbook
rinpol	700.00	NIST Webbook
rinpol	657.00	NIST Webbook
rinpol	695.00	NIST Webbook
rinpol	691.00	NIST Webbook
rinpol	691.00	NIST Webbook
rinpol	709.00	NIST Webbook
rinpol	691.00	NIST Webbook
rinpol	705.00	NIST Webbook
rinpol	703.00	NIST Webbook
rinpol	703.00	NIST Webbook
rinpol	695.00	NIST Webbook
rinpol	709.00	NIST Webbook
rinpol	717.20	NIST Webbook
rinpol	705.00	NIST Webbook
rinpol	714.00	NIST Webbook
rinpol	705.00	NIST Webbook
rinpol	683.00	NIST Webbook
rinpol	705.00	NIST Webbook
rinpol	708.00	NIST Webbook
rinpol	698.00	NIST Webbook
rinpol	714.00	NIST Webbook
rinpol	726.00	NIST Webbook
rinpol	710.00	NIST Webbook
rinpol	703.00	NIST Webbook
rinpol	705.00	NIST Webbook
rinpol	663.00	NIST Webbook
rinpol	691.00	NIST Webbook
rinpol	694.20	NIST Webbook

rinpol	684.00	NIST Webbook
rinpol	694.00	NIST Webbook
rinpol	695.00	NIST Webbook
rinpol	712.00	NIST Webbook
rinpol	706.00	NIST Webbook
rinpol	729.00	NIST Webbook
rinpol	714.00	NIST Webbook
rinpol	651.00	NIST Webbook
rinpol	702.00	NIST Webbook
rinpol	702.00	NIST Webbook
rinpol	714.00	NIST Webbook
rinpol	710.00	NIST Webbook
rinpol	694.20	NIST Webbook
rinpol	678.95	NIST Webbook
rinpol	700.00	NIST Webbook
rinpol	678.00	NIST Webbook
rinpol	692.00	NIST Webbook
rinpol	684.00	NIST Webbook
rinpol	688.00	NIST Webbook
rinpol	695.00	NIST Webbook
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ripol	938.00	NIST Webbook
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ripol	916.00	NIST Webbook

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ripol	974.00	NIST Webbook
ripol	957.00	NIST Webbook
ripol	956.00	NIST Webbook
ripol	939.00	NIST Webbook
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ripol	955.00	NIST Webbook
ripol	952.00	NIST Webbook
ripol	952.00	NIST Webbook
ripol	950.00	NIST Webbook
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ripol	931.00	NIST Webbook
ripol	946.00	NIST Webbook
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ripol	945.00	NIST Webbook
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ripol	924.00	NIST Webbook
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ripol	925.00		NIST Webbook
ripol	922.00		NIST Webbook
ripol	947.00		NIST Webbook
ripol	939.00		NIST Webbook
ripol	957.00		NIST Webbook
ripol	976.00		NIST Webbook
ripol	955.00		NIST Webbook
ripol	977.00		NIST Webbook
ripol	946.00		NIST Webbook
ripol	951.00		NIST Webbook
ripol	966.00		NIST Webbook
ripol	952.00		NIST Webbook
ripol	955.00		NIST Webbook
ripol	953.00		NIST Webbook
tb	371.91	K	Isobaric Vapor-Liquid Equilibria and Excess Quantities for Binary Mixtures of an Ethyl Ester + tert-Butanol and a New Approach to VLE Data Processing
tb	372.20	K	(Liquid + liquid) equilibria of (water + butyric acid + esters) ternary systems
tb	372.20	K	KDB
tb	372.25	K	Isobaric vapour-liquid equilibrium for binary systems of ethyl iodide with ethanol, propionic acid and ethyl propionate at 101.3 kPa
tb	372.25	K	Solubility and critical surface in the system propionic acid-ethanol-ethyl propionate-water at 293.15, 303.15 and 313.15 K
tc	546.00	K	KDB
tc	553.80 ± 5.00	K	NIST Webbook
tc	546.10 ± 1.00	K	NIST Webbook
tc	546.00 ± 1.00	K	NIST Webbook
tc	545.60 ± 1.00	K	NIST Webbook
tc	552.70 ± 5.00	K	NIST Webbook
tc	545.60 ± 2.00	K	NIST Webbook

tc	546.00	K	NIST Webbook
tf	199.85	K	Aqueous Solubility Prediction Method
tf	199.20	K	KDB
tf	199.71	K	Efficient determination of crystallisation and melting points at low cooling and heating rates with novel computer controlled equipment
tf	199.25 ± 0.40	K	NIST Webbook
tf	200.24 ± 0.20	K	NIST Webbook
vc	0.345	m3/kmol	KDB
zc	0.2554980		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	163.46	J/mol×K	390.09	Joback Method
cpg	171.91	J/mol×K	419.85	Joback Method
cpg	180.12	J/mol×K	449.61	Joback Method
cpg	188.08	J/mol×K	479.38	Joback Method
cpg	195.80	J/mol×K	509.14	Joback Method
cpg	203.26	J/mol×K	538.90	Joback Method
cpg	210.46	J/mol×K	568.66	Joback Method
cpl	199.58	J/mol×K	298.33	NIST Webbook
cpl	200.90	J/mol×K	298.15	NIST Webbook
dvisc	0.0003440	Pa×s	333.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0003150	Pa×s	343.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0003600	Pa×s	328.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters

dvisc	0.0003780	Pa×s	323.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0003980	Pa×s	318.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0004180	Pa×s	313.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0004410	Pa×s	308.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0004640	Pa×s	303.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0004920	Pa×s	298.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0003290	Pa×s	338.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
dvisc	0.0005230	Pa×s	293.15	Density and Viscosity Correlation for Several Common Fragrance and Flavor Esters
hvapt	36.70	kJ/mol	367.50	NIST Webbook
hvapt	36.00 ± 0.10	kJ/mol	344.00	NIST Webbook
hvapt	36.60 ± 0.10	kJ/mol	336.00	NIST Webbook
hvapt	38.20 ± 0.10	kJ/mol	313.00	NIST Webbook
hvapt	38.20	kJ/mol	339.00	NIST Webbook
hvapt	34.40	kJ/mol	455.00	NIST Webbook
hvapt	33.88	kJ/mol	372.20	NIST Webbook
hvapt	34.50 ± 0.10	kJ/mol	363.00	NIST Webbook
hvapt	35.50 ± 0.10	kJ/mol	351.00	NIST Webbook

pvap	10.60	kPa	313.15	Total Vapor Pressure Measurements for 2-Ethoxyethanol with Methyl Acetate, Ethyl Acetate, Propyl Acetate, and Ethyl Propionate at 313.15 K and for 2-Ethoxyethanol with Methyl Formate at 308.15 K
pvap	101.30	kPa	372.25	Isobaric vapour-liquid equilibrium for binary systems of ethyl iodide with ethanol, propionic acid and ethyl propionate at 101.3 kPa
rfi	1.38110		298.15	Improvements in the Experimentation and the Representation of Thermodynamic Properties (iso-p VLE and yE) of Alkyl Propanoate + Alkane Binaries
rfi	1.38150		298.15	Thermodynamic study of (alkyl esters + a,x-alkyl dihalides) I: HE and V E for 25 binary mixtures {xCu-1H2u-1CO2C2H5 + (1-x)a,x-ClCH2(CH2)v-2CH2Cl}, where u = 1 to 5, a = 1 and v = x = 2 to 6
rfi	1.37110		318.15	Thermodynamic properties of (an ester + and alkane). XVII. Experimental He and Ve values for (an alkyl propanoate + an alkane) at 318.15K
rhol	895.00	kg/m3	289.00	KDB

tcondl	0.13	W/m×K	316.45	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.13	W/m×K	311.34	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.14	W/m×K	306.51	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.13	W/m×K	321.47	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.13	W/m×K	326.44	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.13	W/m×K	331.53	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.13	W/m×K	336.40	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.12	W/m×K	341.36	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.12	W/m×K	346.42	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.12	W/m×K	351.35	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase

tcondl	0.12	W/m×K	356.28	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.14	W/m×K	301.40	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.14	W/m×K	296.36	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.14	W/m×K	293.54	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.14	W/m×K	288.56	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.14	W/m×K	283.51	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.15	W/m×K	278.51	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.15	W/m×K	270.94	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.15	W/m×K	263.55	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase
tcondl	0.15	W/m×K	268.41	Measurement of the thermal conductivity of five aliphatic esters in the liquid phase

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.45526e+01
Coeff. B	-3.16736e+03
Coeff. C	-5.33670e+01
Temperature range (K), min.	275.40
Temperature range (K), max.	396.11

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	1.01207e+02
Coeff. B	-8.10148e+03
Coeff. C	-1.28594e+01
Coeff. D	9.33835e-06
Temperature range (K), min.	199.25
Temperature range (K), max.	546.00

Datasets

Mass density, kg/m3

Pressure, kPa - Liquid	Temperature, K - Liquid	Mass density, kg/m3 - Liquid
100.00	298.15	884.3
100.00	303.15	878.5
100.00	308.15	872.7
100.00	313.15	866.8
100.00	318.15	860.9
100.00	323.15	854.9
100.00	328.15	849.2
100.00	333.15	843.1
100.00	338.15	836.9

100.00	343.15	831.1
100.00	348.15	824.9
100.00	353.15	818.7
100.00	363.15	803.5
100.00	373.15	790.9
1000.00	298.15	884.8
1000.00	303.15	879.0
1000.00	308.15	873.2
1000.00	313.15	867.4
1000.00	318.15	861.5
1000.00	323.15	856.0
1000.00	328.15	850.2
1000.00	333.15	844.2
1000.00	338.15	838.2
1000.00	343.15	832.2
1000.00	348.15	826.0
1000.00	353.15	819.9
1000.00	363.15	805.1
1000.00	373.15	792.6
1000.00	383.15	780.0
1000.00	393.15	766.4
2000.00	298.15	885.7
2000.00	303.15	880.0
2000.00	308.15	874.2
2000.00	313.15	868.4
2000.00	318.15	862.6
2000.00	323.15	857.1
2000.00	328.15	851.3
2000.00	333.15	845.4
2000.00	338.15	839.5
2000.00	343.15	833.5
2000.00	348.15	827.4
2000.00	353.15	821.3
2000.00	363.15	806.9
2000.00	373.15	794.5
2000.00	383.15	782.1
2000.00	393.15	768.7
3000.00	298.15	886.6
3000.00	303.15	880.9
3000.00	308.15	875.2
3000.00	313.15	869.4
3000.00	318.15	863.7
3000.00	323.15	858.1
3000.00	328.15	852.5

3000.00	333.15	846.6
3000.00	338.15	840.7
3000.00	343.15	834.8
3000.00	348.15	828.8
3000.00	353.15	822.7
3000.00	363.15	808.7
3000.00	373.15	796.4
3000.00	383.15	784.1
3000.00	393.15	770.8
3340.00	298.15	886.9
3340.00	303.15	881.2
3340.00	308.15	875.5
3340.00	313.15	869.8
3340.00	318.15	864.1
3340.00	323.15	858.4
3340.00	328.15	852.9
3340.00	333.15	847.0
3340.00	338.15	841.1
3340.00	343.15	835.2
3340.00	348.15	829.3
3340.00	353.15	823.2
3340.00	363.15	809.3
3340.00	373.15	797.1
3340.00	383.15	784.8
3340.00	393.15	771.5
5000.00	298.15	888.7
5000.00	303.15	883.0
5000.00	308.15	877.4
5000.00	313.15	871.7
5000.00	318.15	866.1
5000.00	323.15	860.3
5000.00	328.15	854.7
5000.00	333.15	849.0
5000.00	338.15	843.1
5000.00	343.15	837.4
5000.00	348.15	831.5
5000.00	353.15	825.6
5000.00	363.15	812.0
5000.00	373.15	800.0
5000.00	383.15	787.9
5000.00	393.15	775.0
10000.00	298.15	892.9
10000.00	303.15	887.4
10000.00	308.15	882.0

10000.00	313.15	876.5
10000.00	318.15	871.0
10000.00	323.15	865.4
10000.00	328.15	860.0
10000.00	333.15	854.6
10000.00	338.15	848.8
10000.00	343.15	843.4
10000.00	348.15	837.7
10000.00	353.15	832.1
10000.00	363.15	819.6
10000.00	373.15	808.2
10000.00	383.15	796.6
10000.00	393.15	784.5
15000.00	298.15	896.9
15000.00	303.15	891.6
15000.00	308.15	886.3
15000.00	313.15	880.9
15000.00	318.15	875.6
15000.00	323.15	870.2
15000.00	328.15	865.0
15000.00	333.15	859.7
15000.00	338.15	854.4
15000.00	343.15	848.9
15000.00	348.15	843.4
15000.00	353.15	838.0
15000.00	363.15	826.5
15000.00	373.15	815.6
15000.00	383.15	804.6
15000.00	393.15	793.1
20000.00	298.15	900.7
20000.00	303.15	895.6
20000.00	308.15	890.4
20000.00	313.15	885.1
20000.00	318.15	880.0
20000.00	323.15	874.7
20000.00	328.15	869.6
20000.00	333.15	864.5
20000.00	338.15	859.4
20000.00	343.15	854.0
20000.00	348.15	848.8
20000.00	353.15	843.5
20000.00	363.15	833.0
20000.00	373.15	822.5
20000.00	383.15	811.9

20000.00	393.15	800.8
25000.00	298.15	904.4
25000.00	303.15	899.4
25000.00	308.15	894.3
25000.00	313.15	889.3
25000.00	318.15	884.1
25000.00	323.15	879.1
25000.00	328.15	874.0
25000.00	333.15	869.2
25000.00	338.15	863.6
25000.00	343.15	859.1
25000.00	348.15	854.0
25000.00	353.15	848.9
25000.00	363.15	839.1
25000.00	373.15	829.0
25000.00	383.15	818.7
25000.00	393.15	808.0
30000.00	298.15	908.9
30000.00	303.15	904.0
30000.00	308.15	899.2
30000.00	313.15	894.4
30000.00	318.15	889.1
30000.00	323.15	884.3
30000.00	328.15	879.4
30000.00	333.15	874.8
30000.00	338.15	869.9
30000.00	343.15	865.0
30000.00	348.15	860.1
30000.00	353.15	855.3
30000.00	363.15	844.8
30000.00	373.15	834.9
30000.00	383.15	825.0
30000.00	393.15	814.7
35000.00	298.15	913.6
35000.00	303.15	908.9
35000.00	308.15	904.2
35000.00	313.15	899.5
35000.00	318.15	894.3
35000.00	323.15	889.7
35000.00	328.15	884.9
35000.00	333.15	880.6
35000.00	338.15	875.8
35000.00	343.15	871.0
35000.00	348.15	866.3

35000.00	353.15	861.6
35000.00	363.15	850.2
35000.00	373.15	840.6
35000.00	383.15	830.9
35000.00	393.15	820.9

Reference *https://www.doi.org/10.1021/je800251v*

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C105373&Units=SI

Efficient determination of crystallisation and melting points at low cooling and heating rates with a novel computer controlled instrument: https://www.doi.org/10.1016/j.jct.2008.05.012

Thermodynamic study of (alkyl esters + a,x-alkyl dihalides) II: HE m and V E m for 25 binary mixtures https://www.doi.org/10.1016/j.jct.2005.07.009

Development of a Predictive Equation of State for CO2 + Ethyl Ester Mixtures https://www.doi.org/10.1021/je5002494

KDB Vapor Pressure Data: https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1065

Xu, Z. $EtOH_2(CH_2)_v$-$2CH_2Br$}, where u = 1 and v = x = 2 to 6: https://www.doi.org/10.1021/je800251v

PVT Property Measurements for Ethyl Propionate, Ethyl Butyrate, and Ethyl Pentanoate Esters from (298 to 393) K and Pressure: 35 MPa: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

The Yaws Handbook of Vapor Pressure: https://www.doi.org/10.1016/j.jct.2018.11.019

Liquid-liquid equilibrium of alcohol-ester systems with deep eutectic solvent on the base of choline chloride: https://www.doi.org/10.1016/j.fluid.2018.07.013

Vapor-liquid equilibrium in the binary and ternary systems containing ethyl propionate, ethanol and heptane at 101.3 kPa: https://www.doi.org/10.1016/j.jct.2018.12.023

Isobaric vapor-liquid equilibrium of binary systems of ethyl iodide with ethanol, propionic acid and ethyl butyrate at 101.3 kPa: https://www.doi.org/10.1016/j.jct.2007.01.013

(Liquid + liquid) equilibria of (water + butyric acid + ester) ternary systems: https://www.doi.org/10.1016/j.jct.2005.03.020

KDB: https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1065

Thermodynamic study of (alkyl esters + a,x-alkyl dihalides) I: HE and V E for 25 binary mixtures {xCH3(CH2)v-2CH2Br + (1-x)a,x-CH3CH2(CH2)v-2CH2Br}, where u = 1 and v = x = 2 to 6: https://www.doi.org/10.1016/j.jct.2005.03.020

Experimental determination and calculation of the critical curves for the binary mixtures (x CO2 + (1-x) C2H5OH) and (x CO2 + (1-x) C2H5OC2H5) at 313.15 K and 333.15 K: https://www.doi.org/10.1016/j.fluid.2011.05.005

Vapor-Liquid Equilibria of Dimethyl Carbonate + Ethyl Isobutanoate and Carbon Dioxide + Ethyl Isobutanoate Systems, Respectively: https://www.doi.org/10.1021/je034224j

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Critical Properties of Alkyl Propanoate + Alkane Binaries, and Related Pure-Fluid Properties of C4−C8 Isomeric n-Alkyl Alkanoates (Alkyl Alkanoate + Alkane Systems): https://www.doi.org/10.1016/j.jct.2004.12.014

Measurements of thermodynamic properties of ethyl propionate and methyl butanoate in the liquid phase: https://www.doi.org/10.1016/j.jct.2019.06.014

Estimated Solubility Method: http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt

Total Vapor Pressure Measurements for 2-Ethoxyethanol with Methyl Acetate, Ethyl Acetate, Propyl Acetate, and Ethyl Propionate at 313.15 K and 101.3 kPa: https://www.doi.org/10.1021/je0255628

Isothermal (vapour + liquid) equilibria for the binary systems of (carbon monoxide + ethyl propionate): https://www.doi.org/10.1016/j.jct.2012.11.028

Aqueous Solubility Prediction Method: http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa

Isobaric Vapor-Liquid Equilibria and Excess Quantities for Binary Mixtures of an Ethyl Ester + tert-Butanol and a New Approach to VLE Data Processing: https://www.doi.org/10.1021/je0202073

Legend

af:	Acentric Factor
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dm:	Dipole Moment
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
nfpaf:	NFPA Fire Rating
pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhoc:	Critical density
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tcondl:	Liquid thermal conductivity
tf:	Normal melting (fusion) point
vc:	Critical Volume
zc:	Critical Compressibility

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