

Formic acid, butyl ester

Other names:	BUTYL ESTER FORMIC ACID Butyl formate Butyl methanoate Butylester kyseliny mravenci HCOO(CH ₂) ₃ CH ₃ UN 1128 butyl acetate methanoic acid, butyl ester n-Butyl formate n-Butyl methanoate
Inchi:	InChI=1S/C5H10O2/c1-2-3-4-7-5-6/h5H,2-4H2,1H3
InchiKey:	NMJJFJNHVMGPGM-UHFFFAOYSA-N
Formula:	C5H10O2
SMILES:	CCCCOC=O
Mol. weight [g/mol]:	102.13
CAS:	592-84-7

Physical Properties

Property code	Value	Unit	Source
affp	806.00	kJ/mol	NIST Webbook
basg	775.00	kJ/mol	NIST Webbook
gf	-213.30	kJ/mol	Joback Method
hf	-364.33	kJ/mol	Joback Method
hfus	12.18	kJ/mol	Joback Method
hvap	41.16	kJ/mol	NIST Webbook
hvap	40.10	kJ/mol	NIST Webbook
hvap	41.30 ± 0.10	kJ/mol	NIST Webbook
hvap	37.10 ± 0.04	kJ/mol	NIST Webbook
ie	10.52	eV	NIST Webbook
ie	10.50 ± 0.02	eV	NIST Webbook
ie	10.54	eV	NIST Webbook
ie	10.52 ± 0.02	eV	NIST Webbook
ie	10.52 ± 0.05	eV	NIST Webbook
log10ws	-1.37		Estimated Solubility Method
log10ws	-1.37		Aqueous Solubility Prediction Method

logp	0.959		Crippen Method
mcvol	88.750	ml/mol	McGowan Method
nfpaf	%!d(float64=3)		KDB
nfpah	%!d(float64=2)		KDB
pc	3713.49	kPa	Joback Method
rinpol	684.00		NIST Webbook
rinpol	737.00		NIST Webbook
rinpol	701.00		NIST Webbook
rinpol	696.00		NIST Webbook
rinpol	701.00		NIST Webbook
rinpol	707.00		NIST Webbook
rinpol	684.00		NIST Webbook
rinpol	680.00		NIST Webbook
rinpol	707.00		NIST Webbook
rinpol	703.00		NIST Webbook
rinpol	680.00		NIST Webbook
rinpol	707.00		NIST Webbook
rinpol	737.00		NIST Webbook
rinpol	737.00		NIST Webbook
rinpol	706.00		NIST Webbook
rinpol	708.00		NIST Webbook
rinpol	706.00		NIST Webbook
rinpol	707.00		NIST Webbook
rinpol	724.00		NIST Webbook
rinpol	737.00		NIST Webbook
rinpol	696.00		NIST Webbook
rinpol	708.00		NIST Webbook
rinpol	711.00		NIST Webbook
rinpol	711.00		NIST Webbook
rinpol	707.00		NIST Webbook
ripol	996.00		NIST Webbook
ripol	996.00		NIST Webbook
ripol	1033.00		NIST Webbook
ripol	1010.00		NIST Webbook
ripol	1020.00		NIST Webbook
ripol	996.00		NIST Webbook
tb	379.80 ± 0.60	K	NIST Webbook
tb	379.85 ± 1.00	K	NIST Webbook
tb	379.80 ± 0.50	K	NIST Webbook
tb	378.75 ± 1.00	K	NIST Webbook
tb	379.95 ± 0.50	K	NIST Webbook
tb	443.00 ± 2.00	K	NIST Webbook
tb	379.75 ± 0.30	K	NIST Webbook
tb	380.00 ± 0.20	K	NIST Webbook

tb	379.30	K	NIST Webbook
tb	380.00	K	NIST Webbook
tb	380.13	K	Isobaric Vapor-Liquid Equilibrium Data and Excess Properties of Binary Systems Comprised of Alkyl Methanoates + Hexane
tb	380.10 ± 1.50	K	NIST Webbook
tb	380.13	K	Solutions of alkyl methanoates and alkanes: Simultaneous modeling of phase equilibria and mixing properties. Estimation of behavior by UNIFAC with recalculation of parameters
tb	379.33	K	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
tb	379.75 ± 0.30	K	NIST Webbook
tc	565.20	K	NIST Webbook
tf	181.40	K	Aqueous Solubility Prediction Method
tf	183.15 ± 1.50	K	NIST Webbook
tf	183.20 ± 0.40	K	NIST Webbook
vc	0.350	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	210.97	J/mol×K	558.32	Joback Method
cpg	204.01	J/mol×K	529.41	Joback Method
cpg	165.62	J/mol×K	384.88	Joback Method
cpg	173.77	J/mol×K	413.79	Joback Method
cpg	181.68	J/mol×K	442.69	Joback Method
cpg	189.36	J/mol×K	471.60	Joback Method
cpg	196.81	J/mol×K	500.50	Joback Method
cpl	200.25	J/mol×K	298.15	NIST Webbook
dvisc	0.0003669	Pa×s	355.79	Joback Method
dvisc	0.0002907	Pa×s	384.88	Joback Method
dvisc	0.0030878	Pa×s	210.34	Joback Method
dvisc	0.0016395	Pa×s	239.43	Joback Method
dvisc	0.0009985	Pa×s	268.52	Joback Method
dvisc	0.0006700	Pa×s	297.61	Joback Method

dvisc	0.0004827	Pa×s	326.70	Joback Method
hvapt	38.10 ± 0.10	kJ/mol	355.00	NIST Webbook
hvapt	37.30 ± 0.10	kJ/mol	363.00	NIST Webbook
hvapt	36.58	kJ/mol	379.30	NIST Webbook
hvapt	37.90	kJ/mol	337.50	NIST Webbook
hvapt	40.10 ± 0.10	kJ/mol	313.00	NIST Webbook
hvapt	39.00 ± 0.10	kJ/mol	328.00	NIST Webbook
hvapt	38.70 ± 0.10	kJ/mol	346.00	NIST Webbook
pvap	42.24	kPa	353.14	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	101.32	kPa	380.13	Isobaric Vapor-Liquid Equilibrium Data and Excess Properties of Binary Systems Comprised of Alkyl Methanoates + Hexane
pvap	7.98	kPa	313.16	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	10.19	kPa	318.33	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	12.79	kPa	323.32	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	16.08	kPa	328.57	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate

pvap	19.50	kPa	333.14	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	19.50	kPa	333.15	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	29.10	kPa	343.14	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	29.10	kPa	343.15	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	164.08	kPa	395.48	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	42.24	kPa	353.15	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate
pvap	51.34	kPa	358.67	Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and 2-Ethoxyethanol + n-Butyl Formate

pvap	39.80	kPa	351.93	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	41.34	kPa	352.90	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	42.56	kPa	353.61	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	44.01	kPa	354.63	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	45.40	kPa	355.48	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	46.69	kPa	356.16	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	48.04	kPa	357.06	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	49.58	kPa	357.83	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	50.55	kPa	358.51	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	52.07	kPa	359.21	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	53.37	kPa	360.03	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	54.63	kPa	360.58	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	56.03	kPa	361.30	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	57.30	kPa	362.07	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	58.74	kPa	362.78	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	60.03	kPa	363.41	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	61.37	kPa	363.94	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	62.61	kPa	364.53	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	64.01	kPa	365.28	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	65.43	kPa	365.82	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	66.70	kPa	366.39	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	67.81	kPa	366.97	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	69.73	kPa	367.70	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	70.69	kPa	368.21	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	72.02	kPa	368.77	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	73.27	kPa	369.20	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	74.67	kPa	369.77	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	76.02	kPa	370.39	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	77.77	kPa	371.01	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	78.69	kPa	371.35	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	160.14	kPa	394.63	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	81.22	kPa	372.32	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	82.86	kPa	372.98	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	83.42	kPa	373.23	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	85.54	kPa	374.00	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	86.83	kPa	374.46	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	87.98	kPa	374.80	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	89.51	kPa	375.42	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	90.70	kPa	375.83	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	91.92	kPa	376.18	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	92.98	kPa	376.53	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	94.84	kPa	377.23	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	95.98	kPa	377.54	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	97.12	kPa	377.91	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	98.83	kPa	378.53	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	100.02	kPa	378.91	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	101.32	kPa	379.33	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	102.50	kPa	379.63	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	104.07	kPa	380.17	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	105.51	kPa	380.63	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	106.83	kPa	381.03	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	107.92	kPa	381.30	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	109.24	kPa	381.70	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	110.80	kPa	382.22	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	112.00	kPa	382.51	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	113.36	kPa	382.90	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	114.60	kPa	383.32	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	116.00	kPa	383.66	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	117.36	kPa	384.03	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	118.60	kPa	384.40	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	120.01	kPa	384.83	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	121.48	kPa	385.23	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	122.69	kPa	385.51	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	162.84	kPa	395.19	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	125.48	kPa	386.31	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	126.69	kPa	386.58	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	128.01	kPa	386.93	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	129.35	kPa	387.32	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	130.79	kPa	387.69	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	131.85	kPa	387.92	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	133.41	kPa	388.37	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	134.53	kPa	388.60	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	136.15	kPa	389.06	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	137.47	kPa	389.38	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	138.88	kPa	389.73	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	140.17	kPa	390.04	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	141.21	kPa	390.26	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	142.57	kPa	390.58	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	143.71	kPa	390.85	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	145.47	kPa	391.31	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	146.81	kPa	391.62	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	147.92	kPa	391.84	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	149.45	kPa	392.24	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	150.41	kPa	392.42	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	152.16	kPa	392.86	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	154.53	kPa	393.36	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	156.14	kPa	393.76	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	157.28	kPa	393.97	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	158.68	kPa	394.32	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	79.90	kPa	371.83	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
pvap	161.36	kPa	394.90	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol

pvap	123.93	kPa	385.84	Vapor-Liquid Equilibria at 101.32 kPa and Excess Properties of Binary Mixtures of Butyl Esters + tert-Butyl Alcohol
rfi	1.38700		298.15	Thermodynamic study of (alkyl esters + a,x-alkyl dihalides)III. H E m and V E m for 20 binary mixtures {xCu-1H2u-1CO2C4H9 + (1 - x)a,x-ClCH2(CH2)v-2CH2Cl}, where u = 1 to 4, a = 1 and v = x = 2 to 6
rfi	1.38870		293.15	Isobaric Vapor Liquid Equilibrium for Binary Systems of Thioglycolic Acid with Water, Butyl Acetate, Butyl Formate, and Isobutyl Acetate at 101.3 kPa
rhoI	895.86	kg/m3	291.15	Experimentation and thermodynamic representations of binaries containing compounds of low boiling points: Pentane and alkylmethanoates
rhoI	888.47	kg/m3	298.15	Experimentation and thermodynamic representations of binaries containing compounds of low boiling points: Pentane and alkylmethanoates

Correlations

Information

Value

Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.49116e+01
Coeff. B	-3.55041e+03
Coeff. C	-3.47740e+01
Temperature range (K), min.	277.55
Temperature range (K), max.	404.60

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/T + C \cdot \ln(T) + D \cdot T^2$
Coeff. A	4.40515e+01
Coeff. B	-5.85877e+03
Coeff. C	-4.05995e+00
Coeff. D	8.80582e-07
Temperature range (K), min.	181.25
Temperature range (K), max.	559.00

Sources

Isobaric Vapor-Liquid Equilibrium Data and Excess Properties of Binary Systems Composed of Alkyl Methanoates + Hexane: Isobaric Vapor Liquid Equilibrium for Binary Systems of Thioglycolic Acid With Methyl, Ethyl, Propyl, Acetate, Butyl Formate, and Isobutyl Acetate at 101.3 KPa.

Assessment, measurement and correlation of (vapour + liquid) equilibrium for (carbon dioxide + butyl, isobutyl, and amyl formate) systems: KDB:

Experimentation and thermodynamic representations of binaries containing compounds Solubility Prediction Method: Pentane and alkylmethanoates: Estimated Solubility Method:

Thermodynamic study of (alkyl esters + a,x-alkyl dihalides) V. Hex and Vex for binary mixtures

Excess properties and isobaric vapor liquid equilibrium for four binary systems of alkyl (methyl to butyl) methanoates with decane:

Vapor-Liquid Equilibrium for Phenol + r-Methyl Benzyl Alcohol and Thermodynamic study of (alkyl esters + a,x-alkyl dihalides)III. HE m and V E m for solutions of alkylmethanoates and alkanes: Simultaneous modeling of phase equilibria and enthalpy heats of mixing for binary mixtures of alkyl esters + a,x-alkyl dihalides

Phase equilibria and enthalpy heats of mixing for binary mixtures of alkyl esters + a,x-alkyl dihalides at 101.32 kPa and 101.32 kPa

Phase equilibria and enthalpy heats of mixing for binary mixtures of alkyl esters + a,x-alkyl dihalides at 101.32 kPa and 101.32 kPa

<https://www.doi.org/10.1021/je060355j>

<https://www.thermo.com/research/kdb/hcprop/showprop.php?cmpid=1068>

<https://www.doi.org/10.1021/acs.jced.6b00686>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C592847&Units=SI>

<http://link.springer.com/article/10.1007/BF02311772>

<https://www.doi.org/10.1016/j.jct.2013.05.017>

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

<https://www.thermo.com/research/kdb/hcprop/showprop.php?cmpid=1068>

<https://www.doi.org/10.1016/j.fluid.2013.11.026>

<http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDataset002.xlsx>

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

<https://www.doi.org/10.1016/j.jct.2006.10.008>

<http://pubs.acs.org/doi/abs/10.1021/ci9903071>

<https://www.doi.org/10.1016/j.fluid.2009.12.003>

https://en.wikipedia.org/wiki/Joback_method

<https://www.doi.org/10.1021/je025566c>

<https://www.doi.org/10.1016/j.jct.2005.11.003>

<https://www.doi.org/10.1016/j.fluid.2015.05.031>

<https://www.doi.org/10.1016/j.jct.2009.05.006>

<https://www.doi.org/10.1021/je0497350>

Legend

affp:	Proton affinity
basg:	Gas basicity
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
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
nfpah:	NFPA Health Rating
pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhof:	Liquid Density
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

Latest version available from:

<https://www.cheméo.com/cid/20-019-8/Formic-acid-butyl-ester.pdf>

Generated by Cheméo on 2025-12-21 14:14:38.48297159 +0000 UTC m=+6074676.013012244.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.