Butane, decafluoro-

Other names:	DECAFLUOROBUTANE
	PERFLUOROBUTANE
	Perfluoro-n-butane
Inchi:	InChI=1S/C4F10/c5-1(6,3(9,10)11)2(7,8)4(12,13)14
InchiKey:	KAVGMUDTWQVPDF-UHFFFAOYSA-N
Formula:	C4F10
SMILES:	FC(F)(F)C(F)(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]:	238.03
CAS:	355-25-9

Physical Properties

Property code	Value	Unit	Source
af	0.3740		KDB
gf	-1953.94	kJ/mol	Joback Method
hf	-2121.99	kJ/mol	Joback Method
hfus	7.26	kJ/mol	Joback Method
hvap	11.14	kJ/mol	Joback Method
log10ws	-3.45		Crippen Method
logp	3.382		Crippen Method
mcvol	84.920	ml/mol	McGowan Method
pc	2323.00	kPa	KDB
pc	2323.38 ± 10.13	kPa	NIST Webbook
rhoc	599.83 ± 10.00	kg/m3	NIST Webbook
tb	271.20	K	KDB
tb	271.15 ± 0.10	K	NIST Webbook
tb	271.20 ± 0.50	K	NIST Webbook
tb	271.00	K	NIST Webbook
tb	277.20	K	NIST Webbook
tc	386.35 ± 0.20	K	NIST Webbook
tc	386.40	K	KDB
tf	144.00 ± 1.00	K	NIST Webbook
tf	144.90	K	KDB
vc	0.378	m3/kmol	KDB
zc	0.2733170		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	165.29	J/mol×K	270.70	Joback Method
cpg	175.21	J/mol×K	290.22	Joback Method
cpg	184.60	J/mol×K	309.74	Joback Method
cpg	193.45	J/mol×K	329.26	Joback Method
cpg	201.80	J/mol×K	348.79	Joback Method
cpg	209.65	J/mol×K	368.31	Joback Method
cpg	217.03	J/mol×K	387.83	Joback Method
cpl	127.20	J/mol×K	293.00	NIST Webbook
hvapt	24.20	kJ/mol	299.50	NIST Webbook
hvapt	24.20	kJ/mol	253.00	NIST Webbook
hvapt	23.10	kJ/mol	354.50	NIST Webbook
hvapt	21.00	kJ/mol	308.00	NIST Webbook
hvapt	17.10	kJ/mol	308.00	NIST Webbook
hvapt	25.80	kJ/mol	246.50	NIST Webbook
pvap	89.60	kPa	268.12	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	72.70	kPa	263.15	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	89.60	kPa	268.13	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	109.40	kPa	273.09	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K

pvap	132.40	kPa	278.00	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K	
pvap	132.40	kPa	278.03	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K	
pvap	132.30	kPa	278.03	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K	
pvap	132.30	kPa	278.03	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K	
pvap	132.30	kPa	278.03	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K	
pvap	132.60	kPa	278.06	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K	
pvap	159.00	kPa	282.99	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K	

pvap	189.30	kPa	287.91	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	225.40	kPa	292.97	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	265.30	kPa	297.95	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	310.20	kPa	302.90	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	311.70	kPa	303.13	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	361.00	kPa	307.90	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	364.30	kPa	308.21	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K

pvap	417.80	kPa	312.88	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	481.20	kPa	317.88	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	551.70	kPa	322.89	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	556.40	kPa	323.22	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	629.50	kPa	327.88	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	716.10	kPa	332.91	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	811.00	kPa	337.93	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K

pvap	816.70	kPa	338.22	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	913.00	kPa	342.91	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	1025.80	kPa	347.93	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	1149.20	kPa	352.92	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	1151.60	kPa	353.01	Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K
pvap	72.70	kPa	263.15	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa

pvap	89.60	kPa	268.12	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	109.40	kPa	273.09	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	132.40	kPa	278.00	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	159.00	kPa	282.99	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	189.30	kPa	287.91	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa

pvap	225.40	kPa	292.97	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	265.30	kPa	297.95	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	310.20	kPa	302.90	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	364.30	kPa	308.21	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	417.80	kPa	312.88	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa

pvap	481.20	kPa	317.88	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa	
pvap	556.40	kPa	323.22	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa	
pvap	633.70	kPa	328.15	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa	
pvap	716.10	kPa	332.91	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa	
pvap	811.00	kPa	337.93	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa	

pvap	913.00	kPa	342.91	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	1025.80	kPa	347.93	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	1149.20	kPa	352.92	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	1261.30	kPa	357.10	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	1437.80	kPa	363.13	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa

pvap	1594.10	kPa	368.03	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	1775.90	kPa	373.25	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	1912.10	kPa	376.88	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	1997.70	kPa	379.05	Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R3-1-10) system at temperatures from 313.28 to 392.83 K and pressures up to 4.9 MPa
pvap	91.00	kPa	268.13	Vapor-liquid equilibria of ethylene (C2H4) + decafluorobutane (C4F10) at 268 to 298 K from experiment, molecular simulation and the Peng-Robinson equation of state

pvap	134.60	kPa	278.36	Vapor-liquid equilibria of ethylene (C2H4) + decafluorobutane (C4F10) at 268 to 298 K from experiment, molecular simulation and the Peng-Robinson equation of state	
pvap	192.90	kPa	288.16	Vapor-liquid equilibria of ethylene (C2H4) + decafluorobutane (C4F10) at 268 to 298 K from experiment, molecular simulation and the Peng-Robinson equation of state	
pvap	268.80	kPa	298.13	Vapor-liquid equilibria of ethylene (C2H4) + decafluorobutane (C4F10) at 268 to 298 K from experiment, molecular simulation and the Peng-Robinson equation of state	
pvap	316.00	kPa	302.92	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene	
pvap	339.00	kPa	305.45	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene	

pvap	366.00	kPa	307.90	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	393.00	kPa	310.50	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	419.00	kPa	312.93	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	455.00	kPa	315.48	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	487.00	kPa	317.90	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	522.00	kPa	320.40	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	560.00	kPa	322.91	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene

pvap	595.00	kPa	325.44	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	633.00	kPa	327.92	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	675.00	kPa	330.40	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	718.00	kPa	332.87	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	762.00	kPa	335.39	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	819.00	kPa	337.94	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	860.00	kPa	340.39	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene

pvap	919.00	kPa	342.93	Experimental (vapour + liquid) equilibrium data and modelling for binary mixtures of decafluorobutane with propane and 1-butene
pvap	1151.60	kPa	353.01	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	89.60	kPa	268.12	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	89.60	kPa	268.13	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	109.40	kPa	273.09	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	132.40	kPa	278.00	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K

pvap	132.40	kPa	278.03	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	132.30	kPa	278.03	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	132.30	kPa	278.03	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	132.30	kPa	278.03	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	132.60	kPa	278.06	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	159.00	kPa	282.99	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K

pvap	189.30	kPa	287.91	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	225.40	kPa	292.97	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	265.30	kPa	297.95	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	310.20	kPa	302.90	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	311.70	kPa	303.13	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
pvap	361.00	kPa	307.90	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K

pvap	364.30	kPa	308.21	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	417.80	kPa	312.88	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	481.20	kPa	317.88	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	551.70	kPa	322.89	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	556.40	kPa	323.22	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	629.50	kPa	327.88	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	

pvap	716.10	kPa	332.91	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	811.00	kPa	337.93	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	816.70	kPa	338.22	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	913.00	kPa	342.91	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	1025.80	kPa	347.93	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	
pvap	1149.20	kPa	352.92	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K	

pvap	72.70	kPa	263.15	Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Ethane System at Temperatures from (263 to 353) K
rhol	1517.00	kg/m3	293.00	KDB

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.42719e+01
Coeff. B	-2.30981e+03
Coeff. C	-3.17290e+01
Temperature range (K), min.	196.90
Temperature range (K), max.	386.33

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	7.19638e+01
Coeff. B	-4.91335e+03
Coeff. C	-8.93526e+00
Coeff. D	1.14729e-05
Temperature range (K), min.	144.95
Temperature range (K), max.	386.35

Datasets

Speed of sound, m/s

Temperature, K - Gas	Pressure, kPa - Gas	Speed of sound, m/s - Gas

248.70	10.00	95.1
248.70	20.00	94.56
248.70	30.00	93.98
257.70	10.00	96.57
257.70	20.00	96.22
257.70	30.00	95.7
257.70	50.00	94.78
271.30	10.00	99.26
271.30	20.00	98.71
271.30	30.00	98.33
271.30	50.00	97.39
271.30	70.00	96.39
271.30	100.00	94.79
281.50	10.00	101.05
281.50	20.00	100.64
281.50	30.00	100.23
281.50	50.00	99.38
281.50	70.00	98.4
281.50	100.00	97.04
281.50	150.00	95.08
293.10	10.00	103.02
293.10	20.00	102.7
293.10	30.00	102.37
293.10	50.00	101.71
293.10	70.00	100.86
293.10	100.00	99.66
293.10	150.00	97.68
293.10	200.00	95.63
303.10	10.00	104.78
303.10	20.00	104.57
303.10	30.00	104.25
303.10	50.00	103.35
303.10	70.00	103.06
303.10	100.00	103.05
303.10	150.00	99.91
303.10	200.00	98.41
303.10	250.00	96.5
303.10	300.00	94.89

Reference *https://www.doi.org/10.1016/j.fluid.2010.01.027*

Sources

KDB:	https://www.cheric.org/files/research/kdb/mol/mol1600.mol
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Vapor-liquid equilibria of ethylene (C2H4) + decafluorobutane (C4F10) at 268 to 298 K from experiment, molecular simulation and two-Peng-Robinson equation of state:	https://www.doi.org/10.1016/j.fluid.2012.08.023
Vapor-liquid Equilibrium (VLE) Data and Thermodynamic Modeling for Decafluorobutane (R610) + Carbon Monoxide or Nitric Oxide at (298, 313, and 333) K:	https://www.doi.org/10.1021/je400822m
Experimental vapour-liquid equilibrium data and modelling for perfluorobutane (R610) + carbon dioxide (R744) at temperatures from 263 to 353 K:	https://www.doi.org/10.1016/j.jct.2013.07.020
Isothermal Vapor-Liquid Equilibrium Data for the Perfluorobutane (R610) + Propane and 1-Butene Systems at 293, 313, and 333 K:	https://www.doi.org/10.1021/je1009398
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Isothermal vapor liquid equilibrium data for the decafluorobutane(R3110) + Ethane System at Temperatures from (263 to 353) K :	https://www.doi.org/10.1016/j.fluid.2013.06.031
Vapor-liquid equilibrium data for the dimethyl ether (RE170) + decafluorobutane (R610) system at temperatures from 333 K to 393 K and pressures up to 4.5 MPa:	https://www.doi.org/10.1016/j.fluid.2011.11.026
Isothermal Vapor-Liquid Equilibrium Data and Thermodynamic Modeling for Decafluorobutane (R610) + Difluoromethane (R32) System at Temperatures from 313.12 to 352.89 K and Pressures up to 4.9 MPa:	https://www.doi.org/10.1021/je500496y
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Nist Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C355259&Units=SI
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1600
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Properties of saturated fluorocarbons: Experimental data and modeling using perturbed-chain SAFT:	https://www.doi.org/10.1016/j.fluid.2010.01.027
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Isothermal vapor-liquid equilibrium data for the carbon dioxide (R744) + decafluorobutane (R610) system at temperatures from 263 to 353K:	https://www.doi.org/10.1016/j.fluid.2011.01.017

Legend

af:	Acentric Factor
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rhoc:	Critical density
rhol:	Liquid Density
speedsl:	Speed of sound in fluid
tb:	Normal Boiling Point Temperature

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume
zc:	Critical Compressibility