

Propane, 1,1,1,3,3-pentafluoro

Other names:	1,1,1,3,3-Pentafluoropropane 1,1,1,3,3-Pentafluoropropane (R245fa) R 245fa R-245fa propane, 1,1,1,3,3-pentafluoro-
Inchi:	InChI=1S/C3H3F5/c4-2(5)1-3(6,7)8/h2H,1H2
InchiKey:	MSSNHSVIGIHOJA-UHFFFAOYSA-N
Formula:	C3H3F5
SMILES:	FC(F)CC(F)(F)F
Mol. weight [g/mol]:	134.05
CAS:	460-73-1

Physical Properties

Property code	Value	Unit	Source
gf	-999.27	kJ/mol	Joback Method
hf	-1099.83	kJ/mol	Joback Method
hfus	7.99	kJ/mol	Joback Method
hvap	16.50	kJ/mol	Joback Method
log10ws	-2.05		Crippen Method
logp	2.204		Crippen Method
mcvol	61.980	ml/mol	McGowan Method
pc	3443.98	kPa	Joback Method
tb	288.50 ± 0.50	K	NIST Webbook
tc	389.96	K	Joback Method
tf	113.94	K	Joback Method
vc	0.277	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	104.73	J/molxK	260.72	Joback Method
cpg	111.01	J/molxK	282.26	Joback Method
cpg	117.02	J/molxK	303.80	Joback Method
cpg	122.77	J/molxK	325.34	Joback Method

cpg	128.26	J/molxK	346.88	Joback Method
cpg	133.51	J/molxK	368.42	Joback Method
cpg	138.51	J/molxK	389.96	Joback Method
pvap	116.25	kPa	291.68	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	7.83	kPa	237.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	8.89	kPa	239.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	10.09	kPa	241.65	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	11.33	kPa	243.57	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	12.77	kPa	245.57	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	14.43	kPa	247.67	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	16.22	kPa	249.72	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	17.60	kPa	251.16	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	18.05	kPa	251.64	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	19.12	kPa	252.68	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	20.23	kPa	253.70	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	22.39	kPa	255.59	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	23.69	kPa	256.66	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	24.84	kPa	257.56	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	27.62	kPa	259.60	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	30.07	kPa	261.27	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	30.38	kPa	261.47	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	30.62	kPa	261.62	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	34.30	kPa	263.88	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	37.48	kPa	265.69	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	38.77	kPa	266.40	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	40.32	kPa	267.21	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	40.90	kPa	267.51	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	41.19	kPa	267.65	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	45.21	kPa	269.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	49.58	kPa	271.59	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	49.90	kPa	271.73	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	51.93	kPa	272.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	54.67	kPa	273.73	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	59.81	kPa	275.73	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	65.28	kPa	277.71	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	65.39	kPa	277.74	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	71.23	kPa	279.71	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	71.27	kPa	279.72	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	77.24	kPa	281.62	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	77.66	kPa	281.74	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	80.74	kPa	282.67	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	81.90	kPa	283.01	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	84.01	kPa	283.62	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	91.20	kPa	285.60	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	98.81	kPa	287.57	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	98.82	kPa	287.58	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	99.06	kPa	287.63	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	107.32	kPa	289.64	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	6.90	kPa	235.65	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	118.22	kPa	292.11	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	120.29	kPa	292.56	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	122.46	kPa	293.02	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	127.38	kPa	294.05	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	137.42	kPa	296.05	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	146.08	kPa	297.68	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	148.16	kPa	298.07	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	158.97	kPa	299.99	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	172.36	kPa	302.22	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	174.75	kPa	302.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	176.04	kPa	302.82	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	197.31	kPa	306.06	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	212.70	kPa	308.24	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	241.93	kPa	312.05	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	263.68	kPa	314.67	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	282.34	kPa	316.80	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	299.22	kPa	318.62	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	322.69	kPa	321.02	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	363.80	kPa	324.94	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	386.02	kPa	326.92	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	401.00	kPa	328.21	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	409.17	kPa	328.88	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	452.27	kPa	332.34	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	481.58	kPa	334.54	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	488.66	kPa	335.06	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	516.55	kPa	337.05	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	516.91	kPa	337.07	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	526.04	kPa	337.71	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	552.03	kPa	339.46	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	570.30	kPa	340.65	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	570.45	kPa	340.66	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	609.10	kPa	343.11	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	636.25	kPa	344.74	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	642.16	kPa	345.11	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	675.54	kPa	347.04	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	703.69	kPa	348.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	713.08	kPa	349.13	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	716.41	kPa	349.32	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	759.56	kPa	351.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1014.04	kPa	363.48	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1014.04	kPa	363.48	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1060.63	kPa	365.40	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1060.63	kPa	365.40	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	1147.08	kPa	368.80	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1147.08	kPa	368.80	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1219.92	kPa	371.52	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1219.92	kPa	371.52	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1278.37	kPa	373.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1278.37	kPa	373.61	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1306.04	kPa	374.58	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1344.60	kPa	375.90	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1344.60	kPa	375.90	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1422.66	kPa	378.50	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	1487.89	kPa	380.59	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1500.01	kPa	380.96	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1573.64	kPa	383.23	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1669.48	kPa	386.07	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1756.97	kPa	388.53	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1853.38	kPa	391.15	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1945.04	kPa	393.55	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	1985.59	kPa	394.58	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2050.68	kPa	396.20	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2153.73	kPa	398.69	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	2254.63	kPa	401.04	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2340.78	kPa	402.98	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2400.92	kPa	404.30	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2401.69	kPa	404.32	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2435.41	kPa	405.05	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2531.50	kPa	407.08	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2601.66	kPa	408.53	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2626.54	kPa	409.04	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2646.03	kPa	409.43	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2731.37	kPa	411.13	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	2841.11	kPa	413.25	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2886.59	kPa	414.11	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2916.05	kPa	414.65	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	2949.24	kPa	415.27	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3060.73	kPa	417.28	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3176.22	kPa	419.31	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3221.73	kPa	420.09	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3337.07	kPa	422.02	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3363.03	kPa	422.45	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3459.89	kPa	424.01	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane

pvap	3479.18	kPa	424.32	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3491.58	kPa	424.52	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3617.93	kPa	426.47	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	3658.27	kPa	427.08	Vapor pressures of 1,1,1,2,3,3,3-heptafluoropropane, 1,1,1,3,3,3-hexafluoropropane and 1,1,1,3,3-pentafluoropropane
pvap	132.20	kPa	295.08	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	134.70	kPa	295.57	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	139.90	kPa	296.57	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	145.20	kPa	297.57	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	150.60	kPa	298.57	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	150.70	kPa	298.57	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	150.70	kPa	298.58	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	150.70	kPa	298.58	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	156.50	kPa	299.61	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	162.40	kPa	300.61	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	162.40	kPa	300.61	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	168.40	kPa	301.62	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	174.60	kPa	302.63	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	181.00	kPa	303.64	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	187.60	kPa	304.64	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	194.30	kPa	305.65	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	201.20	kPa	306.66	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	208.30	kPa	307.67	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	215.70	kPa	308.68	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	223.30	kPa	309.70	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	231.10	kPa	310.72	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	239.10	kPa	311.74	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	255.20	kPa	313.71	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	272.60	kPa	315.74	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	290.80	kPa	317.76	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	300.30	kPa	318.78	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	309.90	kPa	319.77	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	329.10	kPa	321.71	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	349.90	kPa	323.73	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	371.60	kPa	325.71	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	394.00	kPa	327.68	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	417.90	kPa	329.67	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	430.40	kPa	330.68	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	443.40	kPa	331.70	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	469.60	kPa	333.71	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	497.10	kPa	335.73	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	525.90	kPa	337.74	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	540.80	kPa	338.75	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	556.10	kPa	339.77	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	587.90	kPa	341.82	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	620.40	kPa	343.82	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	654.60	kPa	345.87	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	689.50	kPa	347.86	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	707.60	kPa	348.87	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	707.70	kPa	348.87	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	725.90	kPa	349.86	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	744.60	kPa	350.86	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	763.80	kPa	351.87	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	783.30	kPa	352.87	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	122.70	kPa	293.15	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	177.90	kPa	303.15	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows

pvap	250.30	kPa	313.15	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	344.00	kPa	323.15	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	621.00	kPa	343.88	A static analytical apparatus for vapour pressures and (vapour + liquid) phase equilibrium measurements with an internal stirrer and view windows
pvap	344.40	kPa	323.15	(Vapour + liquid) equilibrium data for the {1,1-difluoroethane (R152a) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (323.150 to 353.150) K
pvap	463.20	kPa	333.15	(Vapour + liquid) equilibrium data for the {1,1-difluoroethane (R152a) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (323.150 to 353.150) K
pvap	609.80	kPa	343.15	(Vapour + liquid) equilibrium data for the {1,1-difluoroethane (R152a) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (323.150 to 353.150) K

pvap	789.80	kPa	353.15	(Vapour + liquid) equilibrium data for the {1,1-difluoroethane (R152a) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (323.150 to 353.150) K
pvap	177.80	kPa	303.15	Isothermal (vapour + liquid) equilibrium measurements and correlation for the {n-butane (R600) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (303.150 to 373.150) K
pvap	344.70	kPa	323.15	Isothermal (vapour + liquid) equilibrium measurements and correlation for the {n-butane (R600) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (303.150 to 373.150) K
pvap	610.20	kPa	343.15	Isothermal (vapour + liquid) equilibrium measurements and correlation for the {n-butane (R600) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (303.150 to 373.150) K
pvap	1006.70	kPa	363.15	Isothermal (vapour + liquid) equilibrium measurements and correlation for the {n-butane (R600) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (303.150 to 373.150) K

pvap	1266.20	kPa	373.15	Isothermal (vapour + liquid) equilibrium measurements and correlation for the {n-butane (R600) + 1,1,1,3,3-pentafluoropropane (R245fa)} system at temperatures from (303.150 to 373.150) K
pvap	21.93	kPa	255.22	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	21.93	kPa	255.22	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	27.28	kPa	259.37	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	27.27	kPa	259.37	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	27.28	kPa	259.37	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	33.25	kPa	263.27	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	33.25	kPa	263.27	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	33.24	kPa	263.27	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)

pvap	1028.15	kPa	364.00	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	40.47	kPa	267.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	40.47	kPa	267.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	48.26	kPa	271.03	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	48.26	kPa	271.03	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	58.66	kPa	275.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	58.66	kPa	275.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	58.66	kPa	275.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	69.99	kPa	279.32	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	69.98	kPa	279.32	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)

pvap	69.98	kPa	279.33	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	69.99	kPa	279.33	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	82.37	kPa	283.20	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	82.36	kPa	283.20	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	82.37	kPa	283.20	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	89.02	kPa	285.08	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	89.02	kPa	285.08	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	89.05	kPa	285.08	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	103.68	kPa	288.91	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	103.68	kPa	288.91	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)

pvap	103.67	kPa	288.91	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	113.41	kPa	291.16	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	113.43	kPa	291.16	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	113.42	kPa	291.17	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	119.97	kPa	292.62	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	120.01	kPa	292.62	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	134.37	kPa	295.55	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	134.41	kPa	295.55	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	134.41	kPa	295.55	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	149.04	kPa	298.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)

pvap	149.05	kPa	298.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	149.05	kPa	298.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	159.38	kPa	300.16	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	250.20	kPa	313.13	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	250.26	kPa	313.13	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	250.34	kPa	313.13	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	287.67	kPa	317.43	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	287.72	kPa	317.43	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	287.84	kPa	317.43	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	329.90	kPa	321.77	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)

pvap	329.87	kPa	321.77	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	329.90	kPa	321.77	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	390.52	kPa	327.34	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	390.61	kPa	327.34	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	467.79	kPa	333.55	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	639.43	kPa	344.96	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	688.83	kPa	347.80	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	688.90	kPa	347.80	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	757.91	kPa	351.54	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	757.93	kPa	351.54	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)

pvap	757.86	kPa	351.54	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	757.93	kPa	351.54	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	808.71	kPa	354.13	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	809.38	kPa	354.15	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	883.20	kPa	357.70	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	984.31	kPa	362.21	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	984.35	kPa	362.21	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1038.25	kPa	364.47	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1038.23	kPa	364.47	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1103.60	kPa	367.10	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)

pvap	1103.63	kPa	367.11	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1209.27	kPa	371.11	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1209.32	kPa	371.12	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1313.06	kPa	374.81	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1313.09	kPa	374.81	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1317.35	kPa	374.95	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1378.94	kPa	377.03	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1514.26	kPa	381.38	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1617.36	kPa	384.50	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1751.25	kPa	388.32	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)

pvap	1950.82	kPa	393.64	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	19.34	kPa	253.12	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	25.37	kPa	258.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	32.79	kPa	263.13	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	41.88	kPa	268.12	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	52.91	kPa	273.12	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	66.17	kPa	278.12	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	82.07	kPa	283.15	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	89.11	kPa	285.14	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	100.56	kPa	288.12	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	122.20	kPa	293.09	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	131.93	kPa	295.08	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane

pvap	147.46	kPa	298.06	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	177.01	kPa	303.06	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	190.20	kPa	305.05	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	210.95	kPa	308.05	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	225.91	kPa	310.09	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	249.94	kPa	313.10	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	266.80	kPa	315.08	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	294.26	kPa	318.12	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	312.44	kPa	320.17	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	343.03	kPa	323.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	364.63	kPa	325.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	398.98	kPa	328.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane

pvap	423.22	kPa	330.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	461.65	kPa	333.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	531.78	kPa	338.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	609.29	kPa	343.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	642.58	kPa	345.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	695.02	kPa	348.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	789.45	kPa	353.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	893.28	kPa	358.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	1007.01	kPa	363.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	1130.31	kPa	368.13	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	1265.73	kPa	373.13	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	1413.62	kPa	378.16	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane

pvap	1573.34	kPa	383.15	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	1745.43	kPa	388.14	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	1932.23	kPa	393.14	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	2133.20	kPa	398.12	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	2348.19	kPa	403.07	Vapor Pressure of Dimethoxymethane and 1,1,1,3,3-Pentafluoropropane
pvap	28.52	kPa	260.32	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	50.91	kPa	272.13	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	75.62	kPa	281.15	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	122.98	kPa	293.31	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	192.78	kPa	305.49	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	254.28	kPa	313.62	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	324.38	kPa	321.40	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	467.72	kPa	333.49	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)

pvap	642.26	kPa	345.16	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	754.32	kPa	351.47	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
pvap	40.47	kPa	267.31	Vapor Pressures of 1,1,1,3,3-Pentafluoropropane (HFC-245fa) and 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
pvap	1378.24	kPa	377.04	Vapor Pressures of 2-Chloro-3,3,3-trifluoropropene (HCFO-1233xf)
srf	0.02	N/m	267.32	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.02	N/m	271.47	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.02	N/m	277.73	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.02	N/m	283.18	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	288.35	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))

srf	0.01	N/m	293.81	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	302.97	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	312.56	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	313.15	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	322.07	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	334.76	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	343.24	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))

srf	0.01	N/m	353.15	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	363.08	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.00	N/m	373.17	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.00	N/m	382.94	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.02	N/m	272.96	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.02	N/m	278.00	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.02	N/m	282.98	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))

srf	0.01	N/m	287.77	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	293.59	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	298.52	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	303.29	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	308.40	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	312.93	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	323.23	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))

srf	0.01	N/m	332.33	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	342.86	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.01	N/m	353.12	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
srf	0.00	N/m	371.88	Surface Tension and Parachor Measurement of Low-Global Warming Potential Working Fluid cis-1-Chloro-2,3,3,3-tetrafluoropropene (R1224yd(Z))
tcondl	0.09	W/m×K	285.08	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	244.64	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	244.90	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	254.41	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	254.67	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.05	W/m×K	415.54	Thermal Conductivity of HFC-245fa from (243 to 413) K

tcondl	0.10	W/m×K	264.37	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	264.64	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	264.91	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	274.38	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	274.66	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	274.94	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	284.51	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	284.80	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	244.40	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	294.42	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	294.67	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	294.99	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	304.46	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	304.72	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.09	W/m×K	305.08	Thermal Conductivity of HFC-245fa from (243 to 413) K

tcondl	0.08	W/m×K	314.17	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	314.45	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	314.53	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	314.76	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	314.80	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	315.13	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	315.17	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	324.46	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	324.78	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	325.15	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	334.52	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	334.84	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.08	W/m×K	335.21	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.07	W/m×K	344.59	Thermal Conductivity of HFC-245fa from (243 to 413) K

tcondl	0.07	W/m×K	344.93	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.07	W/m×K	345.31	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.07	W/m×K	354.66	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.07	W/m×K	355.00	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.07	W/m×K	355.37	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.07	W/m×K	364.67	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.07	W/m×K	365.04	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.07	W/m×K	365.43	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	374.69	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	375.06	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	375.44	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	384.70	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	385.14	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	385.48	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	394.71	Thermal Conductivity of HFC-245fa from (243 to 413) K

tcondl	0.06	W/m×K	395.10	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	395.52	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	404.77	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	405.12	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.06	W/m×K	405.54	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.05	W/m×K	414.79	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.05	W/m×K	415.16	Thermal Conductivity of HFC-245fa from (243 to 413) K
tcondl	0.10	W/m×K	254.94	Thermal Conductivity of HFC-245fa from (243 to 413) K

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.62017e+01
Coeff. B	-3.09270e+03
Coeff. C	-2.12950e+01
Temperature range (K), min.	215.63
Temperature range (K), max.	427.16

Datasets

Viscosity, Pa*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
263.15	1000.00	0.0006790
263.15	5000.00	0.0007113
263.15	10000.00	0.0007526
263.15	15000.00	0.0007951
263.15	20000.00	0.0008369
263.15	25000.00	0.0008778
263.15	30000.00	0.0009236
263.15	35000.00	0.0009686
263.15	40000.00	0.0010153
273.14	1000.00	0.0005811
273.14	5000.00	0.0006083
273.14	10000.00	0.0006456
273.14	15000.00	0.0006801
273.14	20000.00	0.0007170
273.14	25000.00	0.0007534
273.14	30000.00	0.0007902
273.14	35000.00	0.0008293
273.14	40000.00	0.0008685
283.14	1000.00	0.0004999
283.14	5000.00	0.0005252
283.14	10000.00	0.0005564
283.14	15000.00	0.0005887
283.14	20000.00	0.0006204
283.14	25000.00	0.0006519
283.14	30000.00	0.0006847
283.14	35000.00	0.0007184
283.14	40000.00	0.0007497
293.14	1000.00	0.0004344
293.14	5000.00	0.0004571
293.14	10000.00	0.0004859
293.14	15000.00	0.0005143
293.14	20000.00	0.0005433
293.14	25000.00	0.0005704
293.14	30000.00	0.0005998
293.14	35000.00	0.0006291
293.14	40000.00	0.0006589
303.14	1000.00	0.0003799
303.14	5000.00	0.0004011
303.14	10000.00	0.0004282

303.14	15000.00	0.0004534
303.14	20000.00	0.0004796
303.14	25000.00	0.0005048
303.14	30000.00	0.0005306
303.14	35000.00	0.0005573
303.14	40000.00	0.0005829
313.14	1000.00	0.0003343
313.14	5000.00	0.0003538
313.14	10000.00	0.0003790
313.14	15000.00	0.0004035
313.14	20000.00	0.0004270
313.14	25000.00	0.0004502
313.14	30000.00	0.0004745
313.14	35000.00	0.0004975
313.14	40000.00	0.0005211
323.13	1000.00	0.0002952
323.13	5000.00	0.0003139
323.13	10000.00	0.0003372
323.13	15000.00	0.0003595
323.13	20000.00	0.0003816
323.13	25000.00	0.0004029
323.13	30000.00	0.0004250
323.13	35000.00	0.0004464
323.13	40000.00	0.0004694
333.13	1000.00	0.0002601
333.13	5000.00	0.0002788
333.13	10000.00	0.0003009
333.13	15000.00	0.0003232
333.13	20000.00	0.0003433
333.13	25000.00	0.0003637
333.13	30000.00	0.0003837
333.13	35000.00	0.0004048
333.13	40000.00	0.0004241
343.13	1000.00	0.0002301
343.13	5000.00	0.0002484
343.13	10000.00	0.0002698
343.13	15000.00	0.0002900
343.13	20000.00	0.0003100
343.13	25000.00	0.0003304
343.13	30000.00	0.0003488
343.13	35000.00	0.0003686
343.13	40000.00	0.0003872
353.13	1000.00	0.0002053
353.13	5000.00	0.0002226

353.13	10000.00	0.0002428
353.13	15000.00	0.0002627
353.13	20000.00	0.0002819
353.13	25000.00	0.0002999
353.13	30000.00	0.0003186
353.13	35000.00	0.0003361
353.13	40000.00	0.0003537
363.14	2000.00	0.0001838
363.14	5000.00	0.0001972
363.14	10000.00	0.0002190
363.14	15000.00	0.0002389
363.14	20000.00	0.0002561
363.14	25000.00	0.0002746
363.14	30000.00	0.0002918
363.14	35000.00	0.0003084
363.14	40000.00	0.0003250
373.14	2000.00	0.0001612
373.14	5000.00	0.0001758
373.14	10000.00	0.0001977
373.14	15000.00	0.0002165
373.14	20000.00	0.0002346
373.14	25000.00	0.0002518
373.14	30000.00	0.0002679
373.14	35000.00	0.0002839

Reference

<https://www.doi.org/10.1021/je200854k>

Temperature, K	Pressure, kPa	Viscosity, Pa*s
300.81	136.00	0.0000106
300.88	113.00	0.0000107
300.93	107.00	0.0000107
320.26	145.00	0.0000112
320.33	186.00	0.0000113
320.53	108.00	0.0000113
320.58	254.00	0.0000113
338.61	100.00	0.0000119
338.61	435.00	0.0000119
338.98	307.00	0.0000118
339.02	207.00	0.0000119
339.15	145.00	0.0000119
357.15	592.00	0.0000125
357.23	104.00	0.0000126
357.23	305.00	0.0000125

357.38	159.00	0.0000126
357.39	108.00	0.0000126
357.40	224.00	0.0000125
357.43	403.00	0.0000125
357.43	708.00	0.0000125
357.52	503.00	0.0000125
376.25	164.00	0.0000130
376.38	254.00	0.0000130
376.39	567.00	0.0000131
376.43	1071.00	0.0000132
376.46	107.00	0.0000130
376.54	348.00	0.0000130
376.58	676.00	0.0000131
376.61	457.00	0.0000131
376.61	945.00	0.0000131
376.63	1312.00	0.0000134
376.64	797.00	0.0000131
395.60	109.00	0.0000136
395.66	213.00	0.0000136
395.77	311.00	0.0000136
395.80	417.00	0.0000136
395.81	823.00	0.0000137
395.85	512.00	0.0000136
395.93	616.00	0.0000136
395.93	723.00	0.0000137
396.00	934.00	0.0000137
396.02	1280.00	0.0000140
396.17	1390.00	0.0000141
396.22	1164.00	0.0000139
396.24	1044.00	0.0000139
396.35	1505.00	0.0000142
396.46	1614.00	0.0000143

Reference

<https://www.doi.org/10.1021/je900279z>

Mass density, kg/m³

Temperature, K - Liquid	Pressure, kPa - Liquid	Mass density, kg/m ³ - Liquid
293.84	1000.00	1352.16
293.84	3000.00	1357.97
293.84	5000.00	1363.53

293.84	10000.00	1376.42
293.84	15000.00	1388.34
293.84	20000.00	1399.29
293.84	25000.00	1409.54
293.84	30000.00	1419.03
293.84	35000.00	1428.09
293.84	40000.00	1436.79
293.84	50000.00	1452.73
293.84	60000.00	1467.39
293.84	70000.00	1480.99
303.46	1000.00	1326.31
303.46	3000.00	1332.8
303.46	5000.00	1338.98
303.46	10000.00	1353.32
303.46	15000.00	1366.31
303.46	20000.00	1378.22
303.46	25000.00	1389.33
303.46	30000.00	1399.65
303.46	35000.00	1409.33
303.46	40000.00	1418.45
303.46	50000.00	1435.43
303.46	60000.00	1450.88
303.46	70000.00	1465.1
313.18	1000.00	1299.2
313.18	3000.00	1306.56
313.18	5000.00	1313.51
313.18	10000.00	1329.44
313.18	15000.00	1343.73
313.18	20000.00	1356.77
313.18	25000.00	1368.61
313.18	30000.00	1379.73
313.18	35000.00	1390.16
313.18	40000.00	1399.89
313.18	50000.00	1417.82
313.18	60000.00	1434.07
313.18	70000.00	1449.07
323.00	1000.00	1270.55
323.00	3000.00	1278.98
323.00	5000.00	1286.86
323.00	10000.00	1304.71
323.00	15000.00	1320.47
323.00	20000.00	1334.65
323.00	25000.00	1347.58
323.00	30000.00	1359.46

323.00	35000.00	1370.64
323.00	40000.00	1381.03
323.00	50000.00	1400.08
323.00	60000.00	1417.12
323.00	70000.00	1432.87
332.83	1000.00	1240.26
332.83	3000.00	1250.02
332.83	5000.00	1259.06
332.83	10000.00	1279.16
332.83	15000.00	1296.63
332.83	20000.00	1312.15
332.83	25000.00	1326.17
332.83	30000.00	1339.02
332.83	35000.00	1350.93
332.83	40000.00	1362.03
332.83	50000.00	1382.12
332.83	60000.00	1400.21
332.83	70000.00	1416.64
343.01	1000.00	1206.92
343.01	3000.00	1218.46
343.01	5000.00	1228.97
343.01	10000.00	1251.88
343.01	15000.00	1271.37
343.01	20000.00	1288.45
343.01	25000.00	1303.77
343.01	30000.00	1317.65
343.01	35000.00	1330.42
343.01	40000.00	1342.2
343.01	50000.00	1363.61
343.01	60000.00	1382.71
343.01	70000.00	1399.92
353.00	3000.00	1185.75
353.00	5000.00	1198.11
353.00	10000.00	1224.38
353.00	15000.00	1246.17
353.00	20000.00	1265.01
353.00	25000.00	1281.67
353.00	30000.00	1296.64
353.00	35000.00	1310.33
353.00	40000.00	1322.95
353.00	50000.00	1345.62
353.00	60000.00	1365.63
353.00	70000.00	1383.75
362.91	3000.00	1150.79

362.91	5000.00	1165.55
362.91	10000.00	1195.94
362.91	15000.00	1220.45
362.91	20000.00	1241.23
362.91	25000.00	1259.38
362.91	30000.00	1275.54
362.91	35000.00	1290.2
362.91	40000.00	1303.67
362.91	50000.00	1327.67
362.91	60000.00	1348.77
362.91	70000.00	1367.68
372.94	3000.00	1112.26
372.94	5000.00	1130.36
372.94	10000.00	1165.97
372.94	15000.00	1193.67
372.94	20000.00	1216.58
372.94	25000.00	1236.4
372.94	30000.00	1253.82
372.94	35000.00	1269.55
372.94	40000.00	1283.89
372.94	50000.00	1309.28
372.94	60000.00	1331.43
372.94	70000.00	1351.23

Reference

<https://www.doi.org/10.1016/j.fluid.2011.04.022>

Thermal conductivity, W/m/K

Pressure, kPa - Liquid	Temperature, K - Liquid	Thermal conductivity, W/m/K - Liquid
41639.00	298.74	0.1043
41635.00	298.75	0.1043
41634.00	299.09	0.1044
41635.00	299.09	0.1044
41635.00	299.49	0.1042
41634.00	299.48	0.1043
41632.00	299.89	0.1042
41629.00	299.90	0.1042
41629.00	300.35	0.1044
41624.00	300.35	0.1042
33915.00	298.73	0.1022
33916.00	298.73	0.1019

33913.00	299.09	0.1011
33914.00	299.09	0.1013
33912.00	299.49	0.1011
33910.00	299.49	0.1012
33910.00	299.92	0.1013
33908.00	299.91	0.1013
33907.00	300.38	0.1015
33905.00	300.37	0.1015
26080.00	298.72	0.0995
26079.00	298.72	0.0994
26077.00	299.09	0.0984
26079.00	299.09	0.0989
26076.00	299.50	0.0990
26073.00	299.50	0.0990
26071.00	299.93	0.0986
26073.00	299.93	0.0988
26067.00	300.41	0.0989
26067.00	300.40	0.0987
19337.00	297.49	0.0966
19332.00	297.49	0.0965
19340.00	297.86	0.0966
19322.00	297.86	0.0966
19334.00	298.27	0.0965
19324.00	298.26	0.0966
19329.00	298.71	0.0966
19323.00	298.70	0.0966
19316.00	299.19	0.0965
19328.00	299.19	0.0965
12586.00	297.37	0.0938
12582.00	297.36	0.0940
12582.00	297.75	0.0940
12583.00	297.75	0.0940
12574.00	298.18	0.0935
12583.00	298.17	0.0936
12577.00	298.62	0.0937
12578.00	298.62	0.0938
12583.00	299.12	0.0938
12580.00	299.11	0.0938
12567.00	297.33	0.0938
12571.00	297.33	0.0940
12572.00	297.73	0.0939
12571.00	297.72	0.0939
12568.00	298.14	0.0937
12571.00	298.14	0.0936

12568.00	298.58	0.0939
12563.00	298.59	0.0938
12561.00	299.09	0.0938
12562.00	299.08	0.0937
6682.00	297.31	0.0913
6681.00	297.30	0.0915
6677.00	297.70	0.0909
6677.00	297.70	0.0911
6680.00	298.14	0.0923
6680.00	298.14	0.0910
6668.00	298.60	0.0911
6673.00	298.60	0.0911
6673.00	299.11	0.0912
6675.00	299.10	0.0912
238.00	297.28	0.0885
238.00	297.28	0.0884
239.00	297.69	0.0881
229.00	297.69	0.0885
234.00	298.14	0.0879
233.00	298.13	0.0878
234.00	298.61	0.0879
230.00	298.61	0.0880
227.00	299.14	0.0880
238.00	299.14	0.0880
68041.00	301.59	0.1115
68044.00	301.59	0.1115
68038.00	301.93	0.1117
68033.00	301.93	0.1115
68022.00	302.30	0.1116
68021.00	302.29	0.1115
68023.00	302.68	0.1115
68021.00	302.68	0.1116
68009.00	303.12	0.1114
68011.00	303.11	0.1115
62455.00	301.58	0.1100
62451.00	301.58	0.1103
62448.00	301.92	0.1098
62442.00	301.92	0.1100
62445.00	302.30	0.1100
62439.00	302.29	0.1101
62429.00	302.70	0.1097
62436.00	302.69	0.1101
62430.00	303.13	0.1100
62436.00	303.13	0.1100

52493.00	301.63	0.1066
52493.00	301.62	0.1071
52486.00	301.97	0.1073
52491.00	301.97	0.1070
52489.00	302.36	0.1070
52487.00	302.36	0.1067
52483.00	302.76	0.1070
52489.00	302.76	0.1069
52487.00	303.21	0.1068
52481.00	303.21	0.1068
43573.00	301.65	0.1041
43574.00	301.65	0.1040
43570.00	302.01	0.1038
43569.00	302.00	0.1040
43574.00	302.40	0.1040
43573.00	302.39	0.1040
43572.00	302.82	0.1041
43572.00	302.81	0.1040
43576.00	303.27	0.1041
43574.00	303.27	0.1040
35538.00	301.66	0.1014
35535.00	301.66	0.1015
35523.00	302.02	0.1016
35525.00	302.02	0.1012
35524.00	302.43	0.1013
35521.00	302.43	0.1012
35521.00	302.85	0.1013
35512.00	302.85	0.1012
35514.00	303.33	0.1012
35513.00	303.33	0.1011
27823.00	301.66	0.0982
27815.00	301.65	0.0982
27819.00	302.03	0.0987
27815.00	302.03	0.0984
27822.00	302.44	0.0986
27824.00	302.43	0.0985
27817.00	302.88	0.0981
27813.00	302.88	0.0984
27811.00	303.37	0.0984
27804.00	303.36	0.0984
21591.00	301.69	0.0967
21597.00	301.69	0.0966
21589.00	302.07	0.0961
21586.00	302.07	0.0961

21586.00	302.49	0.0961
21587.00	302.49	0.0960
21581.00	302.94	0.0960
21589.00	302.94	0.0962
21587.00	303.44	0.0961
21579.00	303.44	0.0959
15353.00	301.75	0.0940
15355.00	301.75	0.0941
15358.00	302.14	0.0935
15361.00	302.14	0.0938
15359.00	302.57	0.0934
15368.00	302.57	0.0935
15370.00	303.04	0.0934
15369.00	303.03	0.0934
15365.00	303.54	0.0934
15366.00	303.54	0.0933
9755.00	301.61	0.0914
9757.00	301.60	0.0916
9757.00	301.98	0.0914
9759.00	301.99	0.0914
9755.00	302.40	0.0914
9754.00	302.41	0.0913
9754.00	302.87	0.0910
9749.00	302.87	0.0911
9753.00	303.36	0.0910
9758.00	303.36	0.0910
4924.00	301.63	0.0896
4920.00	301.64	0.0890
4920.00	302.03	0.0889
4923.00	302.03	0.0893
4920.00	302.47	0.0891
4917.00	302.47	0.0891
4920.00	302.93	0.0888
4918.00	302.93	0.0889
4916.00	303.44	0.0887
4920.00	303.44	0.0888
293.00	301.67	0.0865
289.00	301.67	0.0867
296.00	302.08	0.0866
299.00	302.07	0.0870
297.00	302.51	0.0867
295.00	302.52	0.0869
298.00	302.99	0.0865
297.00	302.99	0.0864

294.00	303.51	0.0866
297.00	303.51	0.0864
69906.00	321.65	0.1083
69905.00	321.65	0.1085
69896.00	322.02	0.1083
69892.00	322.02	0.1082
69881.00	322.42	0.1077
69875.00	322.42	0.1077
69861.00	322.86	0.1078
69859.00	322.85	0.1077
69859.00	323.33	0.1079
69855.00	323.33	0.1079
58592.00	321.68	0.1049
58591.00	321.68	0.1047
58584.00	322.06	0.1050
58582.00	322.06	0.1049
58576.00	322.48	0.1046
58570.00	322.47	0.1047
58569.00	322.92	0.1047
58557.00	322.92	0.1047
58551.00	323.40	0.1046
58550.00	323.41	0.1047
49873.00	321.70	0.1019
49855.00	321.70	0.1015
49848.00	322.09	0.1021
49847.00	322.08	0.1021
49834.00	322.51	0.1019
49828.00	322.51	0.1017
49830.00	322.97	0.1018
49820.00	322.96	0.1018
49813.00	323.46	0.1019
49806.00	323.46	0.1018
40558.00	321.70	0.0992
40553.00	321.69	0.0992
40546.00	322.10	0.0990
40542.00	322.09	0.0990
40531.00	322.53	0.0988
40525.00	322.53	0.0986
40525.00	323.00	0.0986
40517.00	323.00	0.0987
40523.00	323.52	0.0988
40518.00	323.52	0.0987
33193.00	321.71	0.0964
33197.00	321.71	0.0963

33200.00	322.12	0.0964
33198.00	322.11	0.0959
33194.00	322.56	0.0958
33194.00	322.56	0.0956
33192.00	323.05	0.0959
33192.00	323.04	0.0959
33190.00	323.57	0.0959
33191.00	323.56	0.0959
26151.00	321.73	0.0930
26150.00	321.73	0.0934
26148.00	322.15	0.0933
26147.00	322.14	0.0935
26148.00	322.61	0.0930
26147.00	322.61	0.0930
26150.00	323.11	0.0931
26147.00	323.10	0.0929
26145.00	323.65	0.0930
26148.00	323.65	0.0930
19703.00	321.76	0.0905
19697.00	321.74	0.0904
19694.00	322.18	0.0903
19689.00	322.18	0.0904
19689.00	322.66	0.0902
19690.00	322.65	0.0904
19684.00	323.16	0.0904
19687.00	323.16	0.0905
19685.00	323.71	0.0904
19683.00	323.72	0.0902
13839.00	321.78	0.0877
13835.00	321.77	0.0875
13837.00	322.23	0.0877
13831.00	322.23	0.0876
13830.00	322.72	0.0878
13830.00	322.71	0.0877
13836.00	323.23	0.0878
13828.00	323.23	0.0878
13826.00	323.80	0.0876
13825.00	323.80	0.0877
8795.00	321.81	0.0853
8794.00	321.82	0.0854
8795.00	322.27	0.0852
8791.00	322.27	0.0851
8793.00	322.77	0.0850
8791.00	322.76	0.0851

8786.00	323.31	0.0851
8785.00	323.31	0.0851
8785.00	323.89	0.0852
8784.00	323.88	0.0852
4352.00	321.62	0.0827
4356.00	321.63	0.0831
4350.00	322.07	0.0829
4352.00	322.07	0.0831
4352.00	322.56	0.0827
4352.00	322.56	0.0827
4349.00	323.10	0.0825
4348.00	323.09	0.0827
4353.00	323.67	0.0828
4345.00	323.66	0.0826
338.00	321.65	0.0805
337.00	321.64	0.0804
332.00	322.11	0.0803
332.00	322.10	0.0803
332.00	322.61	0.0802
328.00	322.60	0.0803
330.00	323.16	0.0802
332.00	323.15	0.0802
330.00	323.74	0.0800
331.00	323.74	0.0801
69269.00	341.75	0.1038
69248.00	341.73	0.1039
69238.00	342.12	0.1040
69235.00	342.12	0.1042
69218.00	342.54	0.1038
69205.00	342.53	0.1040
69203.00	342.99	0.1043
69188.00	342.99	0.1043
69172.00	343.49	0.1045
69162.00	343.48	0.1043
58417.00	341.71	0.1010
58414.00	341.69	0.1006
58406.00	342.10	0.1005
58399.00	342.09	0.1006
58390.00	342.53	0.1005
58384.00	342.51	0.1004
58374.00	343.00	0.1007
58371.00	342.99	0.1007
58363.00	343.50	0.1009
58358.00	343.50	0.1009

48505.00	341.66	0.0974
48504.00	341.65	0.0972
48492.00	342.06	0.0972
48492.00	342.05	0.0972
48493.00	342.51	0.0972
48484.00	342.49	0.0972
48479.00	342.98	0.0975
48476.00	342.99	0.0972
48479.00	343.51	0.0974
48465.00	343.50	0.0976
39675.00	341.44	0.0951
39673.00	341.44	0.0941
39667.00	341.83	0.0936
39657.00	341.83	0.0938
39659.00	342.28	0.0939
39655.00	342.27	0.0941
39649.00	342.75	0.0942
39640.00	342.75	0.0942
39648.00	343.28	0.0941
39640.00	343.27	0.0941
31723.00	341.36	0.0910
31717.00	341.35	0.0905
31711.00	341.77	0.0907
31709.00	341.77	0.0909
31701.00	342.23	0.0908
31695.00	342.21	0.0909
31697.00	342.72	0.0908
31698.00	342.72	0.0909
31692.00	343.25	0.0909
31683.00	343.25	0.0910
24450.00	341.43	0.0873
24457.00	341.44	0.0877
24452.00	341.81	0.0876
24448.00	341.81	0.0873
24457.00	342.24	0.0877
24443.00	342.23	0.0876
24437.00	342.71	0.0876
24435.00	342.70	0.0875
24434.00	343.22	0.0876
24431.00	343.21	0.0874
18258.00	341.42	0.0846
18251.00	341.41	0.0846
18254.00	341.80	0.0841
18252.00	341.80	0.0846

18254.00	342.24	0.0846
18263.00	342.24	0.0846
18277.00	342.73	0.0845
18288.00	342.71	0.0847
18297.00	343.25	0.0846
18305.00	343.25	0.0848
12858.00	341.40	0.0819
12846.00	341.39	0.0813
12851.00	341.81	0.0813
12862.00	341.80	0.0813
12846.00	342.26	0.0814
12847.00	342.25	0.0814
12854.00	342.75	0.0816
12836.00	342.74	0.0817
12844.00	343.30	0.0819
12856.00	343.29	0.0821
8222.00	341.38	0.0786
8227.00	341.37	0.0791
8213.00	341.79	0.0790
8220.00	341.79	0.0791
8213.00	342.25	0.0788
8211.00	342.25	0.0790
8214.00	342.77	0.0789
8198.00	342.77	0.0788
8208.00	343.33	0.0790
8193.00	343.33	0.0791
4066.00	341.37	0.0764
4061.00	341.37	0.0764
4060.00	341.80	0.0763
4049.00	341.80	0.0761
4064.00	342.28	0.0759
4048.00	342.27	0.0763
4048.00	342.81	0.0762
4060.00	342.80	0.0763
4043.00	343.38	0.0757
4045.00	343.39	0.0759
807.00	341.36	0.0737
791.00	341.36	0.0739
798.00	341.80	0.0740
800.00	341.79	0.0735
784.00	342.29	0.0741
795.00	342.28	0.0742
778.00	342.82	0.0740
779.00	342.83	0.0736

791.00	343.43	0.0735
777.00	343.42	0.0737
150.00	173.21	0.1235
150.00	173.21	0.1232
150.00	173.41	0.1234
150.00	173.66	0.1231
150.00	173.66	0.1231
150.00	173.91	0.1233
150.00	173.91	0.1231
150.00	174.21	0.1234
150.00	174.21	0.1234
132.00	173.30	0.1239
133.00	173.30	0.1234
135.00	173.51	0.1234
135.00	173.51	0.1231
136.00	173.75	0.1237
137.00	173.75	0.1236
138.00	174.01	0.1235
140.00	174.01	0.1235
140.00	174.29	0.1233
141.00	174.29	0.1231
148.00	173.30	0.1237
148.00	173.30	0.1231
148.00	173.51	0.1235
148.00	173.51	0.1238
148.00	173.75	0.1236
148.00	173.75	0.1236
148.00	174.01	0.1235
149.00	174.01	0.1235
149.00	174.30	0.1239
149.00	174.30	0.1236
159.00	181.78	0.1224
159.00	181.78	0.1223
158.00	182.06	0.1227
158.00	182.06	0.1222
158.00	182.37	0.1222
158.00	182.37	0.1225
158.00	182.71	0.1222
158.00	182.70	0.1222
158.00	183.06	0.1223
158.00	183.06	0.1222
70521.00	182.51	0.1336
70514.00	182.81	0.1340
70507.00	182.81	0.1340

70492.00	183.14	0.1338
70493.00	183.14	0.1340
70484.00	183.50	0.1336
70475.00	183.50	0.1338
70475.00	183.89	0.1341
70464.00	183.88	0.1338
63262.00	182.54	0.1331
63262.00	182.54	0.1330
63255.00	182.85	0.1331
63254.00	183.19	0.1330
63248.00	183.18	0.1329
63252.00	183.55	0.1329
63251.00	183.54	0.1330
63243.00	183.93	0.1325
63247.00	183.93	0.1328
54974.00	182.60	0.1317
54979.00	182.60	0.1314
54983.00	182.92	0.1316
54970.00	182.91	0.1314
54980.00	183.25	0.1317
54977.00	183.25	0.1312
54975.00	183.62	0.1314
54970.00	184.01	0.1314
54967.00	184.01	0.1313
47632.00	182.64	0.1303
47638.00	182.64	0.1309
47631.00	182.95	0.1305
47626.00	182.95	0.1304
47628.00	183.30	0.1305
47629.00	183.29	0.1300
47626.00	183.66	0.1304
47632.00	183.67	0.1303
47634.00	184.06	0.1300
47633.00	184.06	0.1303
39979.00	182.68	0.1294
39974.00	182.68	0.1293
39966.00	182.99	0.1290
39976.00	182.99	0.1291
39964.00	183.34	0.1291
39965.00	183.34	0.1291
39959.00	183.71	0.1291
39948.00	183.71	0.1290
39957.00	184.10	0.1290
39951.00	184.10	0.1290

32455.00	182.53	0.1283
32519.00	182.55	0.1280
32589.00	182.84	0.1280
32528.00	182.84	0.1281
32553.00	183.17	0.1282
32517.00	183.16	0.1281
32519.00	183.51	0.1282
32578.00	183.51	0.1281
32497.00	183.88	0.1281
32541.00	183.89	0.1281
25387.00	182.54	0.1271
25434.00	182.54	0.1275
25436.00	182.83	0.1272
25420.00	182.84	0.1270
25441.00	183.16	0.1268
25402.00	183.15	0.1266
25404.00	183.51	0.1269
25455.00	183.51	0.1269
25416.00	183.88	0.1267
25431.00	183.89	0.1268
18849.00	182.53	0.1260
18829.00	182.53	0.1260
18827.00	182.83	0.1259
18835.00	182.83	0.1259
18832.00	183.16	0.1258
18865.00	183.15	0.1257
18836.00	183.51	0.1258
18859.00	183.51	0.1258
18828.00	183.88	0.1257
18858.00	183.88	0.1257
12298.00	182.52	0.1248
12334.00	182.52	0.1252
12333.00	182.82	0.1247
12341.00	183.15	0.1246
12323.00	183.16	0.1246
12360.00	183.51	0.1246
12421.00	183.50	0.1245
12374.00	183.89	0.1246
12395.00	183.89	0.1244
5857.00	182.51	0.1236
5874.00	182.52	0.1237
5874.00	182.81	0.1234
5870.00	182.81	0.1236
5877.00	183.14	0.1234

5876.00	183.14	0.1234
5883.00	183.50	0.1234
5882.00	183.51	0.1233
5875.00	183.88	0.1233
5878.00	183.89	0.1233
269.00	182.50	0.1226
266.00	182.50	0.1225
266.00	182.81	0.1225
278.00	182.81	0.1224
277.00	183.14	0.1224
269.00	183.13	0.1224
279.00	183.50	0.1222
290.00	183.50	0.1225
287.00	183.90	0.1222
282.00	183.90	0.1223
27158.00	201.87	0.1248
27161.00	202.21	0.1249
27161.00	202.21	0.1249
27164.00	202.57	0.1249
27157.00	202.97	0.1247
27152.00	202.97	0.1247
27157.00	203.39	0.1243
27154.00	203.39	0.1246
21433.00	201.86	0.1239
21419.00	201.86	0.1240
21420.00	202.20	0.1237
21408.00	202.20	0.1237
21412.00	202.57	0.1238
21416.00	202.57	0.1237
21421.00	202.97	0.1236
21416.00	202.97	0.1236
21419.00	203.40	0.1235
15810.00	201.81	0.1231
15804.00	202.15	0.1229
15839.00	202.15	0.1229
15780.00	202.52	0.1229
15825.00	202.52	0.1229
15863.00	202.92	0.1227
15810.00	202.92	0.1227
15840.00	203.35	0.1227
15898.00	203.34	0.1226
10055.00	201.78	0.1218
10078.00	201.78	0.1219
10088.00	202.12	0.1217

10097.00	202.12	0.1218
10097.00	202.49	0.1216
10103.00	202.49	0.1216
10110.00	202.90	0.1216
10125.00	203.33	0.1214
10131.00	203.33	0.1214
4752.00	201.76	0.1207
4760.00	201.76	0.1207
4763.00	202.10	0.1206
4763.00	202.48	0.1205
4763.00	202.48	0.1205
4767.00	202.89	0.1203
4772.00	202.89	0.1204
4769.00	203.32	0.1202
4775.00	203.32	0.1202
245.00	201.86	0.1197
253.00	201.85	0.1197
267.00	202.20	0.1193
275.00	202.20	0.1195
275.00	202.58	0.1195
288.00	202.58	0.1194
306.00	202.99	0.1193
337.00	202.99	0.1194
372.00	203.43	0.1190
393.00	203.43	0.1193
67588.00	202.29	0.1327
67566.00	202.29	0.1328
67552.00	202.63	0.1327
67539.00	202.63	0.1325
67521.00	203.00	0.1326
67499.00	203.00	0.1327
67491.00	203.41	0.1325
67478.00	203.40	0.1323
67465.00	203.83	0.1324
67450.00	203.83	0.1325
60684.00	202.28	0.1319
60672.00	202.28	0.1313
60673.00	202.63	0.1317
60672.00	202.63	0.1318
60670.00	203.00	0.1314
60661.00	203.00	0.1314
60664.00	203.41	0.1315
60658.00	203.41	0.1313
60649.00	203.84	0.1313

60649.00	203.84	0.1311
53774.00	202.28	0.1304
53774.00	202.27	0.1304
53770.00	202.62	0.1302
53770.00	202.62	0.1303
53775.00	203.00	0.1301
53771.00	203.00	0.1302
53772.00	203.41	0.1301
53771.00	203.41	0.1302
53769.00	203.84	0.1300
53757.00	203.85	0.1300
46779.00	202.27	0.1291
46773.00	202.27	0.1290
46778.00	202.62	0.1290
46780.00	202.62	0.1289
46783.00	203.00	0.1289
46783.00	203.00	0.1290
46771.00	203.41	0.1289
46773.00	203.41	0.1287
46774.00	203.85	0.1288
46765.00	203.85	0.1288
40147.00	202.26	0.1279
40151.00	202.26	0.1278
40147.00	202.62	0.1278
40142.00	202.61	0.1278
40146.00	203.01	0.1276
40148.00	203.00	0.1278
40147.00	203.42	0.1276
40141.00	203.42	0.1277
40141.00	203.86	0.1276
40135.00	203.86	0.1275
33666.00	202.24	0.1267
33675.00	202.24	0.1266
33679.00	202.59	0.1264
33675.00	202.60	0.1265
33685.00	202.99	0.1265
33690.00	202.98	0.1266
33685.00	203.41	0.1264
33699.00	203.40	0.1263
33690.00	203.85	0.1263
33700.00	203.85	0.1263
27673.00	202.24	0.1255
27677.00	202.23	0.1252
27679.00	202.59	0.1253

27683.00	202.59	0.1253
27679.00	202.99	0.1252
27682.00	202.98	0.1253
27689.00	203.41	0.1252
27682.00	203.86	0.1250
27696.00	203.85	0.1251
67960.00	222.02	0.1300
67941.00	222.02	0.1302
67938.00	222.39	0.1298
67942.00	222.38	0.1297
67930.00	222.77	0.1298
67928.00	222.78	0.1296
67921.00	223.20	0.1295
67923.00	223.19	0.1295
67916.00	223.65	0.1294
67907.00	223.65	0.1291
61325.00	222.02	0.1285
61363.00	222.02	0.1286
61385.00	222.39	0.1283
61389.00	222.38	0.1284
61395.00	222.78	0.1281
61401.00	222.78	0.1282
61402.00	223.21	0.1280
61398.00	223.20	0.1280
61396.00	223.67	0.1278
61399.00	223.66	0.1279
54323.00	222.01	0.1269
54322.00	222.01	0.1269
54316.00	222.38	0.1267
54318.00	222.38	0.1267
54319.00	222.78	0.1266
54318.00	222.78	0.1265
54313.00	223.22	0.1265
54306.00	223.21	0.1263
54305.00	223.68	0.1261
54302.00	223.68	0.1262
47190.00	222.00	0.1252
47202.00	222.01	0.1258
47197.00	222.38	0.1250
47190.00	222.37	0.1251
47189.00	222.78	0.1249
47193.00	222.78	0.1250
47186.00	223.22	0.1248
47187.00	223.22	0.1248

47193.00	223.69	0.1247
47183.00	223.69	0.1247
39755.00	222.00	0.1236
39756.00	222.00	0.1236
39761.00	222.38	0.1235
39767.00	222.37	0.1235
39758.00	222.78	0.1234
39765.00	222.78	0.1236
39767.00	223.22	0.1231
39773.00	223.23	0.1231
39772.00	223.71	0.1229
39777.00	223.70	0.1230
33686.00	222.13	0.1212
33712.00	222.16	0.1215
33800.00	222.53	0.1213
33833.00	222.52	0.1215
33837.00	222.94	0.1213
33847.00	222.94	0.1213
33861.00	223.39	0.1211
33868.00	223.38	0.1211
33873.00	223.88	0.1209
33885.00	223.87	0.1209
27420.00	221.78	0.1202
27443.00	221.78	0.1204
27470.00	222.13	0.1201
27478.00	222.13	0.1202
27479.00	222.52	0.1198
27487.00	222.51	0.1200
27487.00	222.94	0.1197
27478.00	222.94	0.1199
27486.00	223.40	0.1196
27487.00	223.40	0.1195
21259.00	221.77	0.1183
21264.00	221.77	0.1188
21261.00	222.12	0.1184
21267.00	222.12	0.1186
21266.00	222.51	0.1185
21262.00	222.51	0.1182
21269.00	222.94	0.1181
21277.00	222.94	0.1180
21280.00	223.41	0.1178
21286.00	223.40	0.1177
15754.00	221.76	0.1169
15760.00	221.76	0.1169

15761.00	222.12	0.1169
15756.00	222.11	0.1170
15761.00	222.51	0.1166
15763.00	222.51	0.1166
15762.00	222.94	0.1162
15767.00	222.94	0.1163
15769.00	223.41	0.1159
15762.00	223.41	0.1159
10011.00	221.75	0.1159
10031.00	221.74	0.1155
10047.00	222.11	0.1156
10038.00	222.11	0.1155
9999.00	222.51	0.1152
10021.00	222.51	0.1152
10017.00	222.94	0.1147
10023.00	222.94	0.1147
10011.00	223.42	0.1143
10015.00	223.42	0.1145
4830.00	221.73	0.1143
4854.00	221.73	0.1145
4859.00	222.09	0.1139
4863.00	222.09	0.1139
4863.00	222.50	0.1134
4873.00	222.50	0.1134
4862.00	222.95	0.1130
4870.00	222.94	0.1130
4862.00	223.42	0.1127
4869.00	223.42	0.1127
250.00	221.72	0.1129
251.00	221.72	0.1130
247.00	222.10	0.1124
253.00	222.09	0.1125
255.00	222.50	0.1121
245.00	222.52	0.1120
242.00	222.95	0.1115
262.00	222.95	0.1116
243.00	223.43	0.1111
251.00	223.43	0.1111
68711.00	241.43	0.1241
68724.00	241.43	0.1238
68669.00	241.77	0.1236
68692.00	241.78	0.1241
68676.00	242.14	0.1235
68636.00	242.14	0.1235

68673.00	242.56	0.1236
68688.00	242.55	0.1238
68624.00	243.01	0.1235
68665.00	243.01	0.1235
61279.00	241.41	0.1222
61272.00	241.75	0.1223
61249.00	241.75	0.1223
61278.00	242.13	0.1219
61286.00	242.12	0.1221
61245.00	242.55	0.1220
61277.00	242.54	0.1221
61280.00	243.00	0.1220
61272.00	243.01	0.1220
53704.00	241.38	0.1209
53707.00	241.38	0.1206
53704.00	241.73	0.1206
53687.00	241.73	0.1208
53701.00	242.12	0.1203
53712.00	242.10	0.1203
53700.00	242.54	0.1204
53711.00	242.54	0.1205
53705.00	242.99	0.1205
53703.00	242.99	0.1204
46714.00	241.35	0.1192
46711.00	241.35	0.1187
46714.00	241.71	0.1189
46707.00	241.70	0.1184
46703.00	242.09	0.1195
46702.00	242.09	0.1187
46700.00	242.52	0.1191
46692.00	242.51	0.1189
46703.00	242.99	0.1187
46699.00	242.99	0.1186
39784.00	241.36	0.1173
39780.00	241.37	0.1174
39791.00	241.73	0.1169
39777.00	241.72	0.1170
39775.00	242.12	0.1171
39778.00	242.11	0.1171
39776.00	242.55	0.1173
39775.00	242.55	0.1170
39791.00	243.03	0.1173
39783.00	243.02	0.1170
33390.00	241.34	0.1153

33388.00	241.33	0.1150
33378.00	241.70	0.1158
33381.00	241.70	0.1154
33384.00	242.10	0.1155
33385.00	242.09	0.1154
33390.00	242.54	0.1155
33403.00	242.54	0.1154
33391.00	243.02	0.1157
33387.00	243.01	0.1153
26975.00	241.35	0.1134
26974.00	241.35	0.1134
26968.00	241.71	0.1137
26981.00	241.71	0.1139
26965.00	242.12	0.1139
26987.00	242.11	0.1139
26983.00	242.56	0.1140
26980.00	242.56	0.1136
26975.00	243.05	0.1137
26979.00	243.04	0.1139
21021.00	241.32	0.1121
21013.00	241.32	0.1123
21027.00	241.69	0.1119
21032.00	241.69	0.1126
21026.00	242.10	0.1124
21045.00	242.10	0.1126
21038.00	242.55	0.1121
21035.00	242.55	0.1123
21037.00	243.05	0.1122
21046.00	243.04	0.1119
15301.00	241.30	0.1111
15293.00	241.69	0.1107
15290.00	241.68	0.1103
15296.00	242.10	0.1107
15292.00	242.09	0.1107
15291.00	242.55	0.1107
15291.00	242.55	0.1107
15300.00	243.06	0.1105
15285.00	243.04	0.1108
9877.00	241.31	0.1094
9886.00	241.30	0.1092
9892.00	241.69	0.1093
9889.00	241.69	0.1088
9885.00	242.11	0.1091
9889.00	242.11	0.1086

9889.00	242.58	0.1092
9883.00	242.57	0.1090
9885.00	243.07	0.1094
9881.00	243.07	0.1091
4974.00	241.37	0.1077
4982.00	241.38	0.1074
4997.00	241.77	0.1079
4987.00	241.76	0.1080
4998.00	242.19	0.1075
5009.00	242.19	0.1078
5012.00	242.66	0.1074
5012.00	242.65	0.1074
5015.00	243.17	0.1075
5024.00	243.16	0.1074
297.00	241.37	0.1065
297.00	241.37	0.1069
296.00	241.76	0.1058
303.00	241.76	0.1061
312.00	242.19	0.1058
312.00	242.19	0.1064
311.00	242.67	0.1059
307.00	242.66	0.1056
306.00	243.18	0.1061
305.00	243.17	0.1059
68930.00	261.64	0.1197
68933.00	261.63	0.1198
68921.00	262.01	0.1199
68914.00	262.02	0.1199
68907.00	262.43	0.1196
68875.00	262.43	0.1199
68869.00	262.90	0.1204
68892.00	262.89	0.1203
68877.00	263.39	0.1202
68867.00	263.39	0.1202
68837.00	261.61	0.1206
68826.00	261.61	0.1202
68802.00	261.99	0.1199
68824.00	261.99	0.1198
68836.00	262.41	0.1198
68835.00	262.40	0.1199
68811.00	262.87	0.1201
68778.00	262.87	0.1200
68795.00	263.38	0.1200
68817.00	263.37	0.1201

58797.00	261.58	0.1178
58812.00	261.57	0.1174
58829.00	261.96	0.1179
58819.00	261.96	0.1174
58814.00	262.39	0.1181
58816.00	262.39	0.1176
58823.00	262.87	0.1177
58802.00	262.86	0.1175
58767.00	263.38	0.1179
58789.00	263.38	0.1175
51260.00	261.55	0.1154
51262.00	261.55	0.1153
51262.00	261.95	0.1157
51257.00	261.94	0.1157
51253.00	262.38	0.1155
51242.00	262.37	0.1157
51253.00	262.86	0.1158
51258.00	262.85	0.1158
51246.00	263.38	0.1158
51250.00	263.37	0.1158
43978.00	261.52	0.1147
43919.00	261.93	0.1146
43962.00	261.92	0.1136
43965.00	262.36	0.1138
43961.00	262.36	0.1135
43951.00	262.85	0.1138
43922.00	262.84	0.1137
43899.00	263.38	0.1139
43936.00	263.37	0.1139
36952.00	261.13	0.1131
36968.00	261.13	0.1135
36964.00	261.90	0.1125
36937.00	262.35	0.1119
36929.00	262.33	0.1119
36891.00	262.84	0.1121
36917.00	262.84	0.1120
31202.00	261.23	0.1113
31204.00	261.23	0.1116
31216.00	261.60	0.1112
31199.00	262.01	0.1102
31199.00	262.01	0.1104
31214.00	262.46	0.1107
31210.00	262.47	0.1107
31171.00	262.97	0.1105

31137.00	262.97	0.1104
25223.00	261.22	0.1081
25237.00	261.21	0.1087
25212.00	261.60	0.1084
25254.00	262.01	0.1088
25264.00	262.01	0.1087
25250.00	262.47	0.1091
25272.00	262.46	0.1083
25286.00	262.98	0.1085
25291.00	262.97	0.1088
19569.00	261.62	0.1070
19564.00	261.61	0.1066
19538.00	262.04	0.1069
19563.00	262.04	0.1063
19565.00	262.51	0.1063
19581.00	262.50	0.1068
19587.00	263.01	0.1069
19580.00	263.01	0.1068
14126.00	261.19	0.1062
14118.00	261.20	0.1060
14132.00	261.58	0.1051
14121.00	262.01	0.1049
14134.00	262.00	0.1050
14126.00	262.48	0.1053
14086.00	262.48	0.1051
14094.00	263.00	0.1050
14117.00	263.00	0.1048
8849.00	261.17	0.1030
8838.00	261.56	0.1026
8847.00	261.57	0.1029
8858.00	262.00	0.1032
8855.00	262.00	0.1037
8852.00	262.48	0.1036
8826.00	262.46	0.1033
8795.00	263.00	0.1032
8802.00	263.01	0.1032
4298.00	261.17	0.1027
4289.00	261.17	0.1031
4294.00	262.01	0.1017
4301.00	262.01	0.1014
4315.00	262.49	0.1017
4309.00	262.49	0.1016
4280.00	263.04	0.1019
4283.00	263.02	0.1017

260.00	261.21	0.1005
254.00	261.21	0.1005
256.00	261.61	0.0995
263.00	261.61	0.0998
260.00	262.06	0.1002
263.00	262.06	0.1001
264.00	262.55	0.0998
274.00	262.54	0.0998
258.00	263.09	0.1003
251.00	263.09	0.0999
68575.00	281.40	0.1156
68582.00	281.39	0.1153
68577.00	281.78	0.1148
68579.00	281.78	0.1154
68577.00	282.21	0.1158
68599.00	282.22	0.1157
68577.00	282.69	0.1155
68589.00	282.68	0.1157
68582.00	283.19	0.1158
68547.00	283.19	0.1156
61447.00	281.37	0.1138
61439.00	281.37	0.1132
61458.00	281.75	0.1139
61451.00	281.74	0.1132
61445.00	282.18	0.1137
61442.00	282.18	0.1140
61439.00	282.65	0.1136
61432.00	282.64	0.1136
61445.00	283.17	0.1138
61441.00	283.17	0.1135
52956.00	281.36	0.1121
52979.00	281.75	0.1116
52967.00	281.74	0.1113
52971.00	282.19	0.1111
52974.00	282.18	0.1114
52971.00	282.67	0.1109
52972.00	282.67	0.1115
52984.00	283.21	0.1112
52973.00	283.20	0.1113
44270.00	281.32	0.1086
44258.00	281.31	0.1094
44250.00	281.71	0.1090
44261.00	281.72	0.1096
44256.00	282.16	0.1087

44239.00	282.16	0.1090
44247.00	282.66	0.1092
44235.00	282.65	0.1090
44239.00	283.20	0.1089
44231.00	283.20	0.1090
36450.00	281.27	0.1067
36455.00	281.28	0.1069
36460.00	281.69	0.1069
36448.00	281.68	0.1069
36443.00	282.14	0.1066
36448.00	282.14	0.1061
36437.00	282.65	0.1064
36446.00	283.20	0.1068
36442.00	283.20	0.1068
29163.00	281.28	0.1037
29163.00	281.28	0.1042
29164.00	281.71	0.1045
29156.00	281.70	0.1046
29166.00	282.17	0.1045
29157.00	282.17	0.1038
29162.00	282.68	0.1040
29156.00	282.68	0.1040
29157.00	283.25	0.1041
29153.00	283.24	0.1046
22340.00	281.29	0.1017
22340.00	281.29	0.1016
22328.00	281.72	0.1023
22339.00	281.72	0.1018
22330.00	282.20	0.1022
22326.00	282.20	0.1018
22342.00	282.73	0.1021
22340.00	282.72	0.1019
22330.00	283.29	0.1022
22338.00	283.30	0.1020
16109.00	281.26	0.0997
16120.00	281.27	0.0996
16110.00	281.69	0.0999
16102.00	281.69	0.0999
16097.00	282.19	0.1000
16109.00	282.18	0.0997
16110.00	282.71	0.0998
16110.00	282.71	0.0995
16102.00	283.31	0.0998
10502.00	281.26	0.0974

10497.00	281.27	0.0977
10506.00	281.71	0.0979
10499.00	281.70	0.0977
10491.00	282.20	0.0979
10493.00	282.21	0.0975
10500.00	282.74	0.0976
10490.00	283.34	0.0978
10482.00	283.35	0.0978
5081.00	281.27	0.0954
5085.00	281.26	0.0953
5092.00	281.73	0.0954
5099.00	281.72	0.0953
5088.00	282.23	0.0957
5074.00	282.22	0.0955
5079.00	282.78	0.0959
5087.00	282.77	0.0958
5084.00	283.39	0.0958
5078.00	283.39	0.0956
123.00	281.24	0.0929
123.00	281.70	0.0932
123.00	281.69	0.0932
122.00	282.21	0.0934
123.00	282.21	0.0929
123.00	282.78	0.0934
123.00	282.78	0.0933
124.00	283.40	0.0937

Reference

<https://www.doi.org/10.1021/acs.jced.6b00350>

Molar heat capacity at constant pressure, J/K/mol

Temperature, K - Liquid	Pressure, kPa - Liquid	Molar heat capacity at constant pressure, J/K/mol - Liquid
315.15	1590.00	184.58
320.15	1590.00	185.79
325.15	1590.00	187.80
330.15	1590.00	191.02
335.15	1590.00	195.31
340.15	1590.00	200.13
345.15	1590.00	204.83
350.15	1590.00	209.52
355.15	1590.00	214.07

360.15	1590.00	219.30
365.15	1590.00	226.54
315.15	2520.00	184.05
320.15	2520.00	185.12
325.15	2520.00	186.73
330.15	2520.00	189.95
335.15	2520.00	194.37
340.15	2520.00	199.20
345.15	2520.00	204.02
350.15	2520.00	208.44
355.15	2520.00	212.73
360.15	2520.00	217.69
365.15	2520.00	224.26
315.15	3480.00	183.78
320.15	3480.00	184.72
325.15	3480.00	186.19
330.15	3480.00	189.01
335.15	3480.00	193.16
340.15	3480.00	197.85
345.15	3480.00	202.55
350.15	3480.00	207.10
355.15	3480.00	211.66
360.15	3480.00	216.76
365.15	3480.00	222.65
315.15	4530.00	182.98
320.15	4530.00	183.91
325.15	4530.00	185.39
330.15	4530.00	188.07
335.15	4530.00	191.82
340.15	4530.00	196.25
345.15	4530.00	200.94
350.15	4530.00	205.50
355.15	4530.00	210.05
360.15	4530.00	214.74
365.15	4530.00	220.51
315.15	5500.00	182.44
320.15	5500.00	183.24
325.15	5500.00	184.58
330.15	5500.00	187.13
335.15	5500.00	191.02
340.15	5500.00	195.44
345.15	5500.00	200.13
350.15	5500.00	204.56
355.15	5500.00	208.98

360.15	5500.00	213.67
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365.15	5500.00	219.44
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Reference

<https://www.doi.org/10.1016/j.jct.2015.06.014>

Temperature, K	Pressure, kPa	Molar heat capacity at constant pressure, J/K/mol
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307.93	520.40	182.71
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307.87	519.50	181.23
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307.88	514.40	182.17
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307.89	518.20	181.77
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307.89	522.20	181.63
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307.89	517.90	182.71
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277.89	518.30	170.11
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277.90	519.00	171.31
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282.87	509.60	171.72
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282.87	511.00	172.65
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287.92	512.50	173.46
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287.92	512.50	171.85
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287.90	513.90	173.46
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292.91	518.10	179.09
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297.89	514.60	177.61
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297.89	514.60	177.21
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302.89	517.20	178.42
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302.90	518.00	179.09
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307.88	514.40	182.04
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307.88	514.40	181.10
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307.88	514.40	183.78
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313.89	520.40	180.96
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312.89	514.50	181.77
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317.90	522.60	181.90
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317.90	522.20	183.24
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322.95	517.70	184.85
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322.94	518.40	185.66
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322.95	517.70	184.58
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332.97	815.00	189.41
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332.97	816.50	187.80
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327.96	806.40	187.13
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327.97	808.90	185.92
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337.98	810.30	190.62
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342.99	813.60	192.49
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342.96	817.20	192.22
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307.92	415.80	180.70
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307.88	504.10	181.10
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Sources

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- Compressed liquid densities of 1,1,1,3,3-pentafluoropropane (HFC-245fa) and 1,1,1,3,3,3-hexafluoropropane (HFC-236fa) Isothermal (vapour + liquid) equilibrium measurements and correlation for the McGowan Method: 1,1,1,3,3-pentafluoropropane (R245fa) Equilibrium Vapor Measurements of Binary Mixtures for Organic Rankine Cycle Applications: Density of Liquid 1,1,1,3,3-Pentafluoropropane (R245fa) by First-Order Perturbation Theory
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Legend

- 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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rho:	Liquid Density
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tcondl:	Liquid thermal conductivity
tf:	Normal melting (fusion) point
vc:	Critical Volume

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