Ethane, fluoro-

Other names:	C2H5F
	ETHYL FLUORIDE
	Fluoroethane
	Monofluoroethane
	R 161
	REFRIGERANT-161
	UN 2453
Inchi:	InChI=1S/C2H5F/c1-2-3/h2H2,1H3
InchiKey:	UHCBBWUQDAVSMS-UHFFFAOYSA-N
Formula:	C2H5F
SMILES:	CCF
Mol. weight [g/mol]:	48.06
CAS:	353-36-6

Physical Properties

Property code	Value	Unit	Source
af	0.2150		KDB
affp	683.40	kJ/mol	NIST Webbook
basg	655.80	kJ/mol	NIST Webbook
dm	2.00	debye	KDB
gf	-209.70	kJ/mol	KDB
hf	-261.70	kJ/mol	KDB
hfus	4.02	kJ/mol	Joback Method
hvap	19.23	kJ/mol	Joback Method
ie	12.43	eV	NIST Webbook
ie	12.43	eV	NIST Webbook
ie	11.78	eV	NIST Webbook
ie	12.43	eV	NIST Webbook
ie	12.40	eV	NIST Webbook
log10ws	-0.51		Crippen Method
logp	0.976		Crippen Method
mcvol	40.810	ml/mol	McGowan Method
pc	5028.00	kPa	KDB
pc	5027.75 ± 5.06	kPa	NIST Webbook
pc	5027.75 ± 5.06	kPa	NIST Webbook
tb	235.50	K	KDB
tb	235.50	K	NIST Webbook

tb	236.00	K	NIST Webbook
tb	235.45 ± 1.00	K	NIST Webbook
tb	303.90 ± 1.50	K	NIST Webbook
tc	375.31	K	KDB
tc	375.31 ± 0.02	K	NIST Webbook
tc	375.31 ± 0.02	K	NIST Webbook
tf	129.90	K	KDB
vc	0.169	m3/kmol	KDB
zc	0.2723050		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	51.63	J/mol×K	244.43	Joback Method
cpg	59.22	J/mol×K	293.40	Joback Method
cpg	62.86	J/mol×K	317.88	Joback Method
cpg	66.40	J/mol×K	342.36	Joback Method
cpg	69.84	J/mol×K	366.85	Joback Method
cpg	73.19	J/mol×K	391.33	Joback Method
cpg	55.48	J/mol×K	268.91	Joback Method
dvisc	0.0000514	Pa×s	363.16	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0001750	Pa×s	263.17	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0001565	Pa×s	273.15	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0001395	Pa×s	283.15	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa

dvisc	0.0001247	Pa×s	293.15	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0001122	Pa×s	303.15	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0001961	Pa×s	253.16	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0000902	Pa×s	323.16	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0000803	Pa×s	333.16	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0002238	Pa×s	243.17	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0000614	Pa×s	353.16	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0001003	Pa×s	313.14	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa
dvisc	0.0000708	Pa×s	343.16	Viscosity Measurements of Ethyl Fluoride (R161) from 243 K to 363 K at Pressures up to 30 MPa

hvapt	23.10	kJ/mol	235.50	KDB
hvapt	20.20	kJ/mol	314.00	NIST Webbook
hvapt	20.50	kJ/mol	257.50	NIST Webbook
hvapt	20.70	kJ/mol	359.00	NIST Webbook
hvapt	20.80	kJ/mol	212.00	NIST Webbook
hvapt	22.00	kJ/mol	198.50	NIST Webbook
hvapt	20.70	kJ/mol	217.50	NIST Webbook
kvisc	0.0000002	m2/s	263.17	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000003	m2/s	243.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000003	m2/s	248.11	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	253.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	258.12	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000003	m2/s	238.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	268.16	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000003	m2/s	233.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	273.16	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	278.16	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K

kvisc	0.0000002	m2/s	283.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	288.13	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	293.18	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	8.9700000e-08	m2/s	373.09	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition
kvisc	0.0000002	m2/s	298.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	303.12	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	308.11	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	313.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000002	m2/s	318.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000001	m2/s	320.16	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K
kvisc	0.0000001	m2/s	328.16	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K

kvisc	0.0000001	m2/s	333.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000001	m2/s	338.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000001	m2/s	343.13	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000001	m2/s	348.15	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000001	m2/s	353.17	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000001	m2/s	355.16	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000001	m2/s	360.16	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000001	m2/s	366.08	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000001	m2/s	371.36	Saturated Liquid Viscosity of Ethyl Fluoride (HFC161) from 233 K to 373 K	
kvisc	0.0000002	m2/s	293.43	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition	
kvisc	0.0000002	m2/s	303.14	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition	

kvisc	0.0000002	m2/s	313.11	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition	
kvisc	0.0000001	m2/s	323.14	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition	
kvisc	0.0000001	m2/s	333.15	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition	
kvisc	0.0000001	m2/s	343.14	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition	
kvisc	0.0000001	m2/s	353.12	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition	
kvisc	0.0000001	m2/s	363.11	Surface tension and liquid viscosity measurement of ethyl fluoride(R161) under saturation condition	
pvap	3549.50	kPa	357.14	Vapor Pressure Measurements of Ethyl Fluoride	
pvap	267.60	kPa	259.11	Vapor Pressure Measurements of Ethyl Fluoride	
pvap	288.00	kPa	261.11	Vapor Pressure Measurements of Ethyl Fluoride	
pvap	309.50	kPa	263.12	Vapor Pressure Measurements of Ethyl Fluoride	

pvap	320.70	kPa	264.11	Vapor Pressure Measurements of Ethyl Fluoride
pvap	332.40	kPa	265.10	Vapor Pressure Measurements of Ethyl Fluoride
pvap	344.50	kPa	266.12	Vapor Pressure Measurements of Ethyl Fluoride
pvap	356.60	kPa	267.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	369.10	kPa	268.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	382.00	kPa	269.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	395.30	kPa	270.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	408.80	kPa	271.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	422.90	kPa	272.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	436.70	kPa	273.12	Vapor Pressure Measurements of Ethyl Fluoride
pvap	451.20	kPa	274.11	Vapor Pressure Measurements of Ethyl Fluoride
pvap	466.00	kPa	275.11	Vapor Pressure Measurements of Ethyl Fluoride
pvap	481.80	kPa	276.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	497.50	kPa	277.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	513.90	kPa	278.17	Vapor Pressure Measurements of Ethyl Fluoride
pvap	529.90	kPa	279.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	546.60	kPa	280.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	563.90	kPa	281.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	581.90	kPa	282.16	Vapor Pressure Measurements of Ethyl Fluoride

pvap	599.60	kPa	283.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	636.50	kPa	285.18	Vapor Pressure Measurements of Ethyl Fluoride
pvap	675.10	kPa	287.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	695.20	kPa	288.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	737.50	kPa	290.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	777.90	kPa	292.01	Vapor Pressure Measurements of Ethyl Fluoride
pvap	824.20	kPa	294.03	Vapor Pressure Measurements of Ethyl Fluoride
pvap	871.80	kPa	296.04	Vapor Pressure Measurements of Ethyl Fluoride
pvap	921.90	kPa	298.07	Vapor Pressure Measurements of Ethyl Fluoride
pvap	972.90	kPa	300.05	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1024.90	kPa	302.00	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1081.40	kPa	304.03	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1141.90	kPa	306.12	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1200.90	kPa	308.08	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1270.60	kPa	310.32	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1330.50	kPa	312.19	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1398.10	kPa	314.18	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1472.80	kPa	316.32	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1473.60	kPa	316.33	Vapor Pressure Measurements of Ethyl Fluoride

pvap	1539.80	kPa	318.17	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1613.20	kPa	320.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1690.20	kPa	322.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1770.20	kPa	324.12	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1852.20	kPa	326.11	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1938.90	kPa	328.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2027.00	kPa	330.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2119.30	kPa	332.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2167.40	kPa	333.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2215.10	kPa	334.16	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2263.90	kPa	335.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2313.20	kPa	336.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2363.20	kPa	337.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2414.50	kPa	338.16	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2465.80	kPa	339.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2518.50	kPa	340.16	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2572.00	kPa	341.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2626.30	kPa	342.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2681.70	kPa	343.15	Vapor Pressure Measurements of Ethyl Fluoride

pvap	2737.40	kPa	344.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2794.30	kPa	345.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2852.20	kPa	346.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2910.80	kPa	347.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	2970.70	kPa	348.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3030.80	kPa	349.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3092.20	kPa	350.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3154.50	kPa	351.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3218.00	kPa	352.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3282.00	kPa	353.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3347.60	kPa	354.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3414.20	kPa	355.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3481.20	kPa	356.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	247.80	kPa	257.13	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3619.10	kPa	358.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3689.10	kPa	359.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3761.30	kPa	360.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3834.00	kPa	361.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	3908.00	kPa	362.16	Vapor Pressure Measurements of Ethyl Fluoride

pvap	3982.20	kPa	363.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4058.40	kPa	364.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4060.20	kPa	364.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4138.00	kPa	365.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4216.80	kPa	366.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4295.80	kPa	367.15	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4376.80	kPa	368.16	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4460.10	kPa	369.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4543.50	kPa	370.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4627.60	kPa	371.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	4713.90	kPa	372.14	Vapor Pressure Measurements of Ethyl Fluoride
pvap	336.00	kPa	265.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	468.90	kPa	275.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still

pvap	602.90	kPa	283.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	808.20	kPa	293.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	1051.40	kPa	303.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	1348.60	kPa	313.15	Isothermal Vapor-Liquid Equilibrium of (Pentafluoroethane + Fluoroethane) at Temperatures between (265.15 and 303.15) K Obtained with a Recirculating Still
pvap	311.00	kPa	263.15	Vapor-Liquid Equilibria for 1,1,2,2-Tetrafluoroethane (R134) + Fluoroethane (R161) at Temperatures between (263.15 and 288.15) K
pvap	372.00	kPa	268.15	Vapor-Liquid Equilibria for 1,1,2,2-Tetrafluoroethane (R134) + Fluoroethane (R161) at Temperatures between (263.15 and 288.15) K

pvap	517.00	kPa	278.15	Vapor-Liquid Equilibria for 1,1,2,2-Tetrafluoroethane (R134) + Fluoroethane (R161) at Temperatures between (263.15 and 288.15) K
pvap	700.00	kPa	288.15	Vapor-Liquid Equilibria for 1,1,2,2-Tetrafluoroethane (R134) + Fluoroethane (R161) at Temperatures between (263.15 and 288.15) K
pvap	83.13	kPa	231.49	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	94.43	kPa	234.21	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	107.29	kPa	236.99	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	119.32	kPa	239.38	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	135.31	kPa	242.26	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	148.50	kPa	244.45	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K

pvap	166.36	kPa	247.17	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	183.20	kPa	249.55	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	202.06	kPa	252.04	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	223.94	kPa	254.66	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	243.51	kPa	256.86	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	271.62	kPa	259.79	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	289.32	kPa	261.53	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	326.52	kPa	264.92	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	356.63	kPa	267.46	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K

pvap	389.01	kPa	270.02	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	423.54	kPa	272.57	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	460.69	kPa	275.14	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	499.68	kPa	277.69	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	542.23	kPa	280.25	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	587.98	kPa	282.93	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	633.63	kPa	285.36	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	701.87	kPa	288.87	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K

pvap	736.60	kPa	290.50	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	801.35	kPa	293.49	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	874.83	kPa	296.62	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	917.13	kPa	298.35	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	996.40	kPa	301.40	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1050.98	kPa	303.42	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1111.43	kPa	305.56	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1195.09	kPa	308.36	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1278.68	kPa	311.02	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K

pvap	1362.71	kPa	313.56	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1439.19	kPa	316.06	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1511.10	kPa	318.06	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1596.47	kPa	320.34	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1683.77	kPa	322.83	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1800.76	kPa	325.41	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	1922.45	kPa	328.04	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	2035.85	kPa	330.58	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K

pvap	2105.83	kPa	332.88	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	2262.54	kPa	335.61	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	2369.89	kPa	337.83	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	2489.54	kPa	340.19	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	2639.04	kPa	343.01	Density Data for the Refrigerant Ethyl Fluoride (HFC-161) over a Temperature Range from (230 to 344) K
pvap	214.00	kPa	253.15	Vapor-Liquid Equilibria of the Fluoroethane (R161) + 1,1,1,2-Tetrafluoroethane (R134a) System at Various Temperatures from (253.15 to 292.92) K
pvap	311.00	kPa	263.15	Vapor-Liquid Equilibria of the Fluoroethane (R161) + 1,1,1,2-Tetrafluoroethane (R134a) System at Various Temperatures from (253.15 to 292.92) K

pvap	517.00	kPa	278.15	Vapor-Liquid Equilibria of the Fluoroethane (R161) + 1,1,1,2-Tetrafluoroethane (R134a) System at Various Temperatures from (253.15 to 292.92) K
pvap	802.00	kPa	292.92	Vapor-Liquid Equilibria of the Fluoroethane (R161) + 1,1,1,2-Tetrafluoroethane (R134a) System at Various Temperatures from (253.15 to 292.92) K
pvap	229.70	kPa	255.11	Vapor Pressure Measurements of Ethyl Fluoride
pvap	212.70	kPa	253.11	Vapor Pressure Measurements of Ethyl Fluoride
pvap	196.30	kPa	251.07	Vapor Pressure Measurements of Ethyl Fluoride
pvap	181.50	kPa	249.10	Vapor Pressure Measurements of Ethyl Fluoride
pvap	167.10	kPa	247.09	Vapor Pressure Measurements of Ethyl Fluoride
pvap	153.80	kPa	245.09	Vapor Pressure Measurements of Ethyl Fluoride
pvap	147.60	kPa	244.10	Vapor Pressure Measurements of Ethyl Fluoride
pvap	135.40	kPa	242.12	Vapor Pressure Measurements of Ethyl Fluoride
pvap	124.10	kPa	240.11	Vapor Pressure Measurements of Ethyl Fluoride
pvap	113.30	kPa	238.07	Vapor Pressure Measurements of Ethyl Fluoride
pvap	108.30	kPa	237.11	Vapor Pressure Measurements of Ethyl Fluoride
pvap	103.40	kPa	236.09	Vapor Pressure Measurements of Ethyl Fluoride
pvap	102.90	kPa	236.00	Vapor Pressure Measurements of Ethyl Fluoride

pvap	102.60	kPa	235.94	Vapor Pressure Measurements of Ethyl Fluoride
pvap	102.40	kPa	235.89	Vapor Pressure Measurements of Ethyl Fluoride
pvap	102.20	kPa	235.84	Vapor Pressure Measurements of Ethyl Fluoride
pvap	101.90	kPa	235.79	Vapor Pressure Measurements of Ethyl Fluoride
pvap	101.70	kPa	235.74	Vapor Pressure Measurements of Ethyl Fluoride
pvap	101.50	kPa	235.69	Vapor Pressure Measurements of Ethyl Fluoride
pvap	1730.60	kPa	323.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	1363.60	kPa	313.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	1057.40	kPa	303.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)

pvap	805.60	kPa	293.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	601.40	kPa	283.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	1730.60	kPa	323.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	1539.00	kPa	318.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	1363.60	kPa	313.16	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)

pvap	1203.40	kPa	308.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	1057.40	kPa	303.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	924.80	kPa	298.14	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	698.20	kPa	288.16	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	601.40	kPa	283.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)

pvap	1735.20	kPa	323.15	Vapor - liquid equilibria of fluoroethane (HFC-161) + 2,3,3,3 - tetrafluoroprop - 1 - ene (HFO-1234yf)	
pvap	1365.80	kPa	313.15	Vapor - liquid equilibria of fluoroethane (HFC-161) + 2,3,3,3 - tetrafluoroprop - 1 - ene (HFO-1234yf)	
pvap	1058.80	kPa	303.15	Vapor - liquid equilibria of fluoroethane (HFC-161) + 2,3,3,3 - tetrafluoroprop - 1 - ene (HFO-1234yf)	
pvap	805.60	kPa	293.15	Vapor - liquid equilibria of fluoroethane (HFC-161) + 2,3,3,3 - tetrafluoroprop - 1 - ene (HFO-1234yf)	
pvap	601.20	kPa	283.15	Vapor - liquid equilibria of fluoroethane (HFC-161) + 2,3,3,3 - tetrafluoroprop - 1 - ene (HFO-1234yf)	
pvap	1703.90	kPa	323.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)	
pvap	1607.10	kPa	320.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)	
pvap	1516.50	kPa	318.50	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)	

pvap	1428.60	kPa	315.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	1348.60	kPa	313.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	1269.50	kPa	310.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	1192.80	kPa	308.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	1121.50	kPa	305.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	1051.40	kPa	303.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	990.30	kPa	300.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	924.20	kPa	298.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	866.00	kPa	295.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)

pvap	808.20	kPa	293.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	752.40	kPa	290.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	699.00	kPa	288.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	650.20	kPa	285.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	602.90	kPa	283.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	567.10	kPa	281.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	517.10	kPa	278.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	468.90	kPa	275.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)

pvap	438.10	kPa	273.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	405.30	kPa	270.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	372.20	kPa	268.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	342.30	kPa	265.65	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	311.90	kPa	263.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	261.40	kPa	258.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)
pvap	805.60	kPa	293.15	Vapor liquid equilibrium measurements for difluoromethane (R32) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf) and fluoroethane (R161) + 2,3,3,3-tetrafluoroprop-1-ene (R1234yf)
pvap	216.20	kPa	253.15	Experimental vapor pressure data and a vapor pressure equation for fluoroethane (HFC-161)

srf	0.00	N/m	341.07	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.02	N/m	233.16	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.02	N/m	237.64	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.02	N/m	242.97	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.02	N/m	248.24	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.02	N/m	252.62	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.02	N/m	258.02	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	262.17	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	267.16	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	272.23	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	278.13	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	282.10	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	287.06	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	292.10	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	297.08	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K

srf	0.01	N/m	302.09	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	305.89	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	307.08	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	309.24	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	314.06	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	319.14	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	324.10	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.01	N/m	329.16	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.00	N/m	334.16	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.00	N/m	339.11	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.00	N/m	343.13	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.00	N/m	346.13	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.00	N/m	352.13	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	0.00	N/m	357.15	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K

srf	0.00	N/m	363.16	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	7.23e-04	N/m	368.17	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
srf	3.27e-04	N/m	373.10	Surface tension of ethyl fluoride (HFC161) from (233 to 373) K
tcondl	0.08	W/m×K	355.71	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.43	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.65	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.63	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.59	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.89	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.91	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.90	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	295.22	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	295.22	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	295.22	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	305.19	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.11	W/m×K	305.19	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	305.07	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	304.68	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	304.68	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	304.67	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	304.40	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	304.39	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	304.41	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.36	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.36	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.38	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.68	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.71	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.69	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.10	W/m×K	315.07	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	315.06	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	315.08	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	315.05	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	315.07	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	315.07	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.72	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.70	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.71	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.40	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.40	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	314.46	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	324.64	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	324.64	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	324.66	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.09	W/m×K	324.87	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	324.85	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	324.86	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	325.29	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	325.30	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.10	W/m×K	325.28	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	335.67	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	335.66	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	335.66	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	335.25	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	335.25	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	335.26	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	334.87	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	334.87	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.09	W/m×K	334.87	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	344.80	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	344.82	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	344.82	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	345.21	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.09	W/m×K	345.21	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	345.20	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	345.70	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	345.72	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	345.68	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	355.70	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	355.70	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.70	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	355.29	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	355.29	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.08	W/m×K	355.30	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.88	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.88	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.89	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.87	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.62	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.61	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.62	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.99	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	355.00	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	354.97	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	355.38	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	355.37	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	355.38	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.08	W/m×K	365.47	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	365.52	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	365.53	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	365.06	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	365.08	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	365.08	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	364.71	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	364.69	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.08	W/m×K	364.75	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.07	W/m×K	375.20	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.07	W/m×K	375.21	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.07	W/m×K	375.21	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.07	W/m×K	374.82	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.07	W/m×K	374.81	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.07	W/m×K	374.81	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.07	W/m×K	374.47	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.07	W/m×K	374.48	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.07	W/m×K	374.48	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	254.14	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.12	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	254.15	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.41	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.37	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.36	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.75	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.79	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.71	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.09	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	254.09	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.14	W/m×K	254.08	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	253.80	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	253.79	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	253.79	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.01	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.04	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.04	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.26	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.22	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.25	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.54	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.50	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.14	W/m×K	244.51	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.15	W/m×K	234.63	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.15	W/m×K	234.57	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.15	W/m×K	234.64	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.15	W/m×K	234.32	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.15	W/m×K	234.32	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.15	W/m×K	234.32	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.15	W/m×K	234.01	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.15	W/m×K	234.00	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.15	W/m×K	233.99	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.63	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.64	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.94	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.95	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	294.94	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	284.81	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	284.80	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.12	W/m×K	284.78	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	284.46	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	284.47	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	284.43	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	284.17	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	284.23	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.11	W/m×K	284.22	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	274.39	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	274.40	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	274.37	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	274.62	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	274.64	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	274.66	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	274.98	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.12	W/m×K	274.97	Thermal conductivity of ethyl fluoride (HFC161)

tcondl	0.12	W/m×K	274.95	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	264.51	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	264.51	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	264.43	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	264.16	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	264.17	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	264.19	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	263.95	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	263.95	Thermal conductivity of ethyl fluoride (HFC161)
tcondl	0.13	W/m×K	263.94	Thermal conductivity of ethyl fluoride (HFC161)

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.45899e+01
Coeff. B	-2.19653e+03
Coeff. C	-1.57210e+01
Temperature range (K), min.	169.30
Temperature range (K), max.	375.30

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	4.35322e+01
Coeff. B	-3.38922e+03
Coeff. C	-4.57263e+00
Coeff. D	7.95831e-06
Temperature range (K), min.	129.95
Temperature range (K), max.	375.31

Datasets

Viscosity, Pa*s

Temperature, K - Gas	Pressure, kPa - Gas	Viscosity, Pa*s - Gas
293.32	106.00	0.0000096
293.33	191.00	0.0000095
293.36	288.00	0.0000095
293.40	406.00	0.0000095
293.41	497.00	0.0000096
293.39	592.00	0.0000098
293.35	693.00	0.0000099
293.33	748.00	0.0000101
313.27	119.00	0.0000102
313.25	165.00	0.0000102
313.20	300.00	0.0000102
313.18	397.00	0.0000102
313.16	499.00	0.0000102
313.15	599.00	0.0000102
313.15	694.00	0.0000103
313.14	885.00	0.0000108
313.16	1007.00	0.0000111
313.20	1093.00	0.0000116
313.23	1188.00	0.0000118
313.21	1269.00	0.0000122
333.69	115.00	0.0000109
333.68	140.00	0.0000108

333.68	219.00	0.0000108
333.67	417.00	0.0000107
333.63	494.00	0.0000107
333.61	575.00	0.0000107
333.59	719.00	0.0000110
333.61	794.00	0.0000111
333.55	1004.00	0.0000115
333.57	1102.00	0.0000119
333.57	1205.00	0.0000122
333.49	1305.00	0.0000125
333.49	1402.00	0.0000129
333.45	1503.00	0.0000133
333.46	1627.00	0.0000138
333.05	1802.00	0.0000146
351.55	100.00	0.0000115
351.57	193.00	0.0000114
351.55	297.00	0.0000114
351.56	404.00	0.0000113
351.57	505.00	0.0000113
351.57	606.00	0.0000113
351.60	706.00	0.0000114
351.62	800.00	0.0000116
351.66	902.00	0.0000118
351.61	995.00	0.0000119
351.63	1098.00	0.0000119
351.72	1199.00	0.0000123
351.73	1294.00	0.0000126
351.75	1392.00	0.0000128
351.76	1491.00	0.0000133
351.71	1578.00	0.0000135
351.65	1692.00	0.0000139
351.63	1990.00	0.0000152
351.61	2090.00	0.0000157
351.50	2208.00	0.0000163
351.48	2396.00	0.0000173
351.52	2512.00	0.0000180
351.47	2592.00	0.0000186
351.45	2662.00	0.0000191
369.28	101.00	0.0000121
369.28	201.00	0.0000120
369.26	304.00	0.0000119
369.28	400.00	0.0000119
369.30	500.00	0.0000119
369.32	601.00	0.0000120

369.34	690.00	0.0000119
369.23	788.00	0.0000120
369.32	897.00	0.0000122
369.32	991.00	0.0000122
369.33	1096.00	0.0000125
369.35	1191.00	0.0000126
369.35	1289.00	0.0000128
369.35	1391.00	0.0000130
369.34	1492.00	0.0000132
369.24	1599.00	0.0000136
369.30	1692.00	0.0000139
369.25	1743.00	0.0000141
369.30	1808.00	0.0000144
369.25	1879.00	0.0000145
369.27	1999.00	0.0000149
369.34	2176.00	0.0000158
369.32	2308.00	0.0000165
369.47	2400.00	0.0000169
369.31	2466.00	0.0000174
369.48	2603.00	0.0000181
369.47	2704.00	0.0000187
369.48	2904.00	0.0000197
369.48	2996.00	0.0000209
369.50	3094.00	0.0000215
369.50	3204.00	0.0000223
369.51	3306.00	0.0000234
369.51	3405.00	0.0000240
369.49	3512.00	0.0000248
369.49	3623.00	0.0000259
369.48	3701.00	0.0000265
369.46	3806.00	0.0000277

Reference *https://www.doi.org/10.1016/j.fluid.2014.10.023*

Mass density, kg/m3

Temperature, K - Gas	Pressure, kPa - Gas	Mass density, kg/m3 - Gas
300.16	642.20	13.92
305.16	656.60	13.917
310.14	670.40	13.913
312.16	1205.60	27.61

314.16	1218.30	27.607
315.15	684.80	13.91
316.15	1231.80	27.605
318.15	1244.10	27.602
320.14	698.50	13.906
322.16	1268.70	27.596
324.15	1614.60	37.54
325.14	712.30	13.903
326.14	1634.40	37.536
326.16	1293.40	27.591
328.15	1652.50	37.533
330.15	1670.20	37.529
330.16	726.10	13.899
330.16	1317.60	27.585
332.15	2022.60	48.84
334.16	1341.90	27.58
334.16	1704.90	37.521
334.16	2047.70	48.835
335.15	739.50	13.896
336.16	2072.50	48.83
338.12	2287.80	56.23
338.16	1739.00	37.514
338.17	1365.60	27.574
338.20	2096.60	48.825
339.16	2108.20	48.823
340.12	2318.80	56.224
340.15	752.50	13.892
340.15	2419.00	60.32
340.16	2120.60	48.821
342.12	2347.80	56.219
342.16	1388.90	27.569
342.16	2144.20	48.816
342.16	2450.70	60.314
342.17	1773.50	37.506
344.12	2376.70	56.213
344.16	2167.50	48.811
344.16	2482.20	60.308
346.12	2404.50	56.208
346.14	2707.50	68.66
346.15	768.90	13.888
346.15	1412.40	27.563
346.15	2513.10	60.302
346.16	1806.70	37.499
346.16	2190.70	48.806

347.15	2725.90	68.657
348.13	2432.70	56.202
348.15	2743.80	68.653
348.16	2214.00	48.801
348.16	2543.00	60.296
350.15	1435.80	27.558
350.15	2460.50	56.196
350.15	2779.80	68.646
350.16	1840.50	37.491
350.16	2237.20	48.796
350.16	2573.40	60.29
350.16	2978.20	78.21
351.16	2999.90	78.206
352.15	2488.20	56.191
352.15	2815.00	68.639
352.16	2260.10	48.791
352.16	2603.30	60.284
352.17	3021.20	78.202
353.14	3180.20	85.66
353.16	3042.30	78.198
354.15	3204.50	85.656
354.16	790.70	13.883
354.16	1458.80	27.552
354.16	1873.70	37.484
354.16	2283.00	48.787
354.16	2515.30	56.185
354.16	2633.40	60.278
354.16	2850.70	68.633
354.17	3062.90	78.194
355.15	3227.80	85.651
356.14	2542.30	56.18
356.15	2663.10	60.272
356.15	2885.70	68.626
356.16	2305.70	48.782
356.16	3104.40	78.187
356.26	3251.20	85.647
357.26	3274.80	85.642
358.15	1481.80	27.547
358.15	1906.70	37.477
358.15	2569.20	56.174
358.15	2920.00	68.619
358.15	3297.70	85.639
358.16	2328.40	48.777
358.16	2692.50	60.266

358.16	3145.70	78.179
358.16	3506.40	97.915
359.16	3534.20	97.91
360.15	2595.90	56.168
360.15	2954.30	68.612
360.16	2721.30	60.26
360.16	3186.00	78.171
360.16	3343.90	85.63
360.16	3562.20	97.905
360.17	2350.80	48.772
360.17	3660.70	104.59
361.15	3589.90	97.9
361.16	3691.00	104.585
362.14	2622.70	56.163
362.15	811.80	13.877
362.15	2988.30	68.605
362.15	3226.20	78.163
362.15	3389.20	85.622
362.15	3617.00	97.896
362.16	1505.00	27.541
362.16	1939.60	37.469
362.16	3721.40	104.58
362.17	2373.00	48.767
362.17	2750.90	60.254
363.15	3644.50	97.891
363.16	3751.40	104.574
364.15	2649.20	56.157
364.15	3023.00	68.598
364.15	3434.40	85.613
364.15	3780.80	104.569
364.16	2394.90	48.762
364.16	3266.50	78.156
364.16	3671.60	97.886
364.17	2779.60	60.248
365.16	3698.90	97.881
365.16	3810.40	104.564
366.14	1527.70	27.536
366.14	2675.70	56.152
366.15	1971.50	37.462
366.15	3056.70	68.592
366.15	3306.20	78.148
366.15	3478.50	85.605
366.15	3725.20	97.876
366.15	3839.80	104.559

366.16	2417.40	48.757
366.16	2808.40	60.242
367.15	3751.80	97.871
367.15	3869.00	104.554
368.14	2702.00	56.146
368.14	3090.70	68.585
368.15	3346.00	78.14
368.15	3523.30	85.596
368.15	3898.10	104.548
368.16	2439.40	48.753
368.16	2837.30	60.236
368.16	3778.80	97.866
369.14	3805.10	97.861
369.15	3927.30	104.543
370.12	1550.10	27.531
370.13	3123.80	68.578
370.14	2728.00	56.14
370.14	3568.00	85.588
370.14	3831.80	97.857
370.15	833.20	13.872
370.15	2461.80	48.748
370.15	3385.90	78.132
370.15	3956.20	104.538
370.16	2004.00	37.454
370.16	2865.80	60.23

Reference *https://www.doi.org/10.1016/j.fluid.2005.08.011*

Temperature, K	Pressure, kPa	Mass density, kg/m3
378.02	4235.22	106.825
378.01	3335.39	71.042
378.01	2481.64	47.245
378.01	1776.12	31.42
378.01	1240.02	20.895
378.01	851.98	13.896
378.02	579.55	9.241
378.01	391.92	6.145
378.01	264.55	4.087
373.14	4091.85	106.604
373.14	3250.93	70.894
373.14	2430.12	47.146
373.14	1744.06	31.354
373.14	1219.77	20.851

373.13	838.52	13.867
373.15	570.74	9.221
373.14	386.27	6.133
373.14	260.73	4.078
368.27	3165.93	71.038
368.26	2378.24	47.243
368.26	1712.22	31.418
368.26	1199.41	20.894
368.26	825.10	13.895
368.26	561.93	9.24
368.26	380.26	6.145
368.26	256.54	4.087
363.36	3082.31	70.859
363.36	2325.74	47.122
363.37	1680.00	31.337
363.37	1178.86	20.84
363.37	811.80	13.859
363.36	553.08	9.217
363.37	374.25	6.129
363.36	252.39	4.076
358.61	2274.59	47.133
358.61	1648.32	31.345
358.61	1158.96	20.845
358.62	799.33	13.862
358.61	544.42	9.219
358.62	368.40	6.131
358.61	248.43	4.077
352.74	3018.69	77.15
352.74	2347.08	51.308
352.74	1723.98	34.121
352.75	1222.33	22.691
352.75	847.82	15.09
352.74	579.94	10.036
352.74	393.24	6.674
352.74	265.25	4.438
352.75	178.77	2.951
347.85	2287.35	51.336
347.85	1687.63	34.14
347.86	1199.98	22.704
347.85	833.34	15.099
347.85	570.22	10.041
347.86	386.83	6.677
347.86	260.96	4.441
347.85	175.51	2.953

343.02	2227.47	51.191
343.02	1651.35	34.043
343.02	1177.41	22.64
343.01	818.91	15.056
343.02	560.82	10.013
343.01	380.56	6.659
343.01	256.69	4.428
343.03	172.53	2.945
338.15	1614.54	34.027
338.16	1154.55	22.629
338.16	804.44	15.048
338.15	551.38	10.008
338.15	374.30	6.655
338.15	252.41	4.426
338.16	169.60	2.943
333.30	1131.52	22.599
333.30	789.86	15.029
333.29	541.96	9.995
333.30	368.16	6.647
333.30	248.18	4.42
333.31	166.70	2.94
328.42	1539.53	33.847
328.42	1108.32	22.509
328.42	775.13	14.969
328.42	532.98	9.955
328.43	361.91	6.62
328.42	243.93	4.403
328.43	163.80	2.928
323.51	1084.58	22.444
323.51	760.32	14.926
323.52	523.39	9.926
323.51	355.59	6.601
323.52	239.62	4.39
323.52	160.85	2.919
318.67	1060.94	22.39
318.67	745.44	14.89
318.66	513.87	9.903
318.67	349.39	6.585
318.67	235.35	4.379
318.67	158.08	2.912
313.80	1036.81	22.346
313.81	730.50	14.86
313.81	504.31	9.882
313.80	343.12	6.572

313.81	231.58	4.371
313.80	155.20	2.907
308.97	715.60	14.793
308.97	494.66	9.837
308.96	336.88	6.542
308.96	227.65	4.351
308.98	152.32	2.893
303.31	697.80	14.795
303.32	483.63	9.838
303.31	329.55	6.543
303.31	222.77	4.351
303.31	149.42	2.894
298.65	682.94	14.731
298.66	474.30	9.797
298.65	323.48	6.515
298.66	218.72	4.333
298.66	146.61	2.881
293.10	462.98	9.751
293.09	316.32	6.485
293.09	213.69	4.313
293.10	143.41	2.868
288.21	452.92	9.758
288.21	309.96	6.489
288.20	209.64	4.316
283.26	442.81	9.718
283.26	303.56	6.463
283.27	205.41	4.298
278.38	432.22	9.679
278.39	297.17	6.437
278.38	201.28	4.281

Reference *https://www.doi.org/10.1021/acs.jced.7b00195*

Mass density, kg/m3

Temperature, K - Liquid	Pressure, kPa - Liquid	Mass density, kg/m3 - Liquid
283.52	1000.00	727.11
293.20	1010.00	706.97
283.52	3000.00	731.96
332.98	3000.00	616.38
342.85	3000.00	582.54

313.14	3000.00	669.48
323.00	3000.00	644.53
293.20	3010.00	712.87
303.23	3010.00	692.69
283.52	4990.00	736.6
362.79	4990.00	521.7
332.98	5000.00	628.96
342.85	5000.00	600.31
313.14	5000.00	677.22
323.00	5000.00	654.18
352.86	5000.00	566.12
293.21	5010.00	718.27
303.23	5010.00	699.12
303.23	10000.00	713.26
283.51	10000.00	747.35
342.85	10000.00	630.51
313.14	10000.00	694.0
323.00	10000.00	673.87
352.86	10000.00	606.19
362.79	10000.00	579.49
293.21	10010.00	730.51
332.98	10010.00	653.01
303.23	15000.00	725.31
332.99	15000.00	671.15
283.51	15000.00	756.91
342.85	15000.00	651.87
313.14	15000.00	707.5
323.00	15000.00	689.57
352.86	15000.00	631.59
362.80	15000.00	610.29
293.21	15010.00	741.15
352.86	19990.00	650.88
362.80	19990.00	632.41
293.21	20000.00	750.65
342.85	20000.00	668.76
283.51	20000.00	765.51
313.15	20000.00	719.54
323.00	20000.00	702.96
332.99	20010.00	686.12
303.23	20010.00	735.85
362.80	24990.00	650.04
332.99	25000.00	698.88
342.85	25000.00	682.96
313.15	25000.00	729.96

283.51	25000.00	773.62
352.86	25000.00	666.7
323.00	25000.00	714.54
303.24	25010.00	745.33
293.21	25010.00	759.29
332.99	29990.00	710.09
352.86	29990.00	680.18
323.01	30000.00	724.71
342.85	30000.00	695.28
303.23	30000.00	753.95
283.51	30000.00	780.86
362.80	30000.00	664.91
313.15	30010.00	739.29
293.21	30010.00	767.25
332.99	39990.00	729.27
352.86	39990.00	702.62
313.15	40000.00	755.43
323.01	40000.00	742.42
342.85	40000.00	716.03
283.51	40000.00	794.13
362.80	40000.00	689.17
303.24	40010.00	769.21
293.22	40010.00	781.39
283.50	49990.00	805.67
362.80	49990.00	708.84
313.15	50000.00	770.06
303.24	50000.00	782.6
352.86	50000.00	721.07
293.22	50000.00	793.87
332.98	50000.00	745.52
323.01	50000.00	757.67
342.86	50010.00	733.53
352.86	59990.00	736.86
362.81	59990.00	725.55
313.15	60000.00	782.28
293.22	60000.00	805.15
342.85	60000.00	748.38
323.01	60000.00	770.9
283.50	60000.00	816.48
332.98	60000.00	759.62
303.24	60000.00	794.39
323.01	69990.00	783.33
332.99	69990.00	772.51
283.50	69990.00	826.06

342.86	70000.00	762.03
303.24	70000.00	805.57
352.86	70000.00	751.19
293.21	70000.00	815.59
313.15	70000.00	794.18
362.81	70000.00	740.64
283.50	79970.00	834.87
352.86	79990.00	763.56
342.86	79990.00	773.74
293.21	80000.00	825.0
303.24	80000.00	815.36
323.01	80000.00	794.16
313.15	80000.00	804.63
362.81	80000.00	753.56
332.99	80010.00	783.85
313.16	90000.00	814.08
352.86	90000.00	774.75
293.22	90000.00	833.51
303.25	90000.00	824.43
332.99	90000.00	794.07
323.00	90000.00	804.1
362.81	90000.00	765.31
342.86	90010.00	784.53
283.50	90040.00	843.3
352.87	99990.00	785.11
293.22	99990.00	841.66
362.81	99990.00	775.91
323.01	100000.00	813.21
313.16	100000.00	822.46
332.99	100000.00	803.45
283.51	100000.00	851.08
303.25	100000.00	832.9
342.87	100000.00	794.42

Reference *https://www.doi.org/10.1007/s10765-016-2061-1*

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
303.42	1340.00	107.27
303.47	1930.00	106.74

303.50	2520.00	106.24
303.53	3000.00	106.02
303.55	3510.00	105.63
303.57	4010.00	105.42
303.55	4550.00	104.88
303.52	5200.00	103.84
303.53	5540.00	103.57
303.53	5980.00	103.24
303.48	6470.00	102.68
303.51	7100.00	102.32
303.53	7520.00	102.26
303.50	8030.00	101.83
303.52	8440.00	101.93
303.53	9130.00	101.37
303.49	9530.00	100.86
303.50	10100.00	100.80
303.52	10520.00	100.64
303.51	11050.00	100.20
303.52	11560.00	100.42
303.54	12050.00	100.01
313.41	1510.00	112.39
313.31	2010.00	110.61
313.35	2560.00	110.04
313.33	3080.00	109.26
313.35	3500.00	108.56
313.36	4000.00	108.09
313.37	4510.00	107.49
313.39	5070.00	107.08
313.42	5490.00	106.99
313.41	6080.00	106.37
313.43	6510.00	106.03
313.37	7030.00	104.99
313.39	7490.00	104.67
313.42	7980.00	104.69
313.38	8490.00	103.71
313.40	9090.00	103.61
313.38	9510.00	102.92
313.40	10010.00	102.80
313.42	10490.00	102.75
313.43	10980.00	102.52
313.47	11470.00	102.55
324.11	2050.00	115.84
324.13	2570.00	114.70
324.15	3000.00	113.84

324.18	3500.00	113.06
324.16	4060.00	111.82
324.18	4510.00	111.09
324.21	5030.00	110.51
324.17	5510.00	109.38
324.14	5980.00	108.60
324.16	6470.00	107.92
324.19	7020.00	107.27
324.16	7520.00	106.39
324.13	8110.00	105.47
324.15	8550.00	105.20
324.19	9040.00	104.90
324.21	9450.00	104.56
324.17	10040.00	103.35
324.19	10510.00	103.17
324.19	11010.00	102.91
324.21	11610.00	102.46
324.22	12030.00	102.24
333.86	2520.00	124.88
333.92	3010.00	123.20
333.99	3510.00	121.92
334.00	4070.00	120.01
333.99	4620.00	118.27
333.97	5000.00	117.16
333.97	5500.00	115.91
333.98	5990.00	114.80
334.00	6530.00	113.92
334.02	7050.00	112.82
334.05	7490.00	112.09
334.05	8350.00	110.82
334.03	8960.00	109.42
333.99	9500.00	108.39
334.01	10060.00	108.00
334.03	10520.00	107.40
334.03	11040.00	107.08
334.05	11630.00	106.69
334.07	12280.00	106.31
343.40	2840.00	135.92
343.44	3020.00	134.94
343.77	3540.00	133.68
343.84	4040.00	131.08
343.88	4520.00	129.17
343.93	5100.00	126.98
343.91	5560.00	124.90

343.89	5970.00	123.05
343.90	6530.00	121.47
343.90	7040.00	120.17
343.90	7540.00	118.86
343.91	8070.00	117.76
343.91	8530.00	116.74
343.92	9010.00	115.78
343.92	9480.00	114.80
343.92	10010.00	113.86
343.92	10500.00	112.99
343.93	11010.00	112.27
343.96	11570.00	111.80
343.99	12130.00	111.22
353.68	3480.00	157.19
353.82	4030.00	149.07
353.86	4500.00	143.57
353.85	5030.00	138.32
353.82	5500.00	134.57
353.81	6000.00	131.53
353.79	6470.00	128.91
353.81	7130.00	126.37
353.80	7530.00	124.70
353.78	7950.00	123.23
353.77	8480.00	121.76
353.79	9090.00	120.56
353.80	9570.00	119.62
353.79	10010.00	118.76
353.80	10480.00	117.97
353.81	11040.00	117.35
353.84	11540.00	116.89
353.87	11950.00	116.16
363.33	4330.00	193.61
363.70	4990.00	171.83
363.66	5490.00	159.60
363.62	6030.00	150.44
363.62	6520.00	144.76
363.59	7000.00	139.97
363.59	7500.00	136.22
363.60	8030.00	132.67
363.59	8480.00	130.33
363.63	8990.00	128.17
363.61	9520.00	125.95
363.61	10000.00	123.85
363.66	10580.00	122.57

363.68	11000.00	121.51
363.71	11510.00	120.57
363.75	12010.00	119.55
373.37	5540.00	218.60
373.55	6030.00	187.59
373.58	6510.00	170.77
373.56	6990.00	159.83
373.57	7500.00	151.89
373.54	8000.00	146.44
373.53	8500.00	142.08
373.48	9010.00	138.16
373.47	9520.00	134.79
373.53	9990.00	132.61
373.58	10550.00	130.44
373.56	10990.00	128.66
373.53	11480.00	126.08
383.10	6560.00	239.16
383.57	7020.00	204.10
383.78	7490.00	182.33
383.86	7980.00	172.97
383.87	8520.00	160.93
383.81	9090.00	151.38
383.74	9490.00	145.93
383.71	10040.00	140.17
383.71	10550.00	136.16
383.74	11270.00	132.02
383.88	12030.00	129.42

Reference *https://www.doi.org/10.1016/j.fluid.2016.07.034*

Temperature, K	Pressure, kPa	Molar heat capacity at constant pressure, J/K/mol
305.15	2160.00	105.01
305.15	2580.00	104.34
305.15	3100.00	103.90
305.15	3480.00	104.19
305.15	4030.00	104.67
305.15	4460.00	104.39
305.15	4990.00	103.81
305.15	5490.00	102.94
310.15	2160.00	107.51
310.15	2580.00	106.21
310.15	3100.00	106.31
310.15	3480.00	106.26

310.15	4030.00	105.59
310.15	4460.00	105.06
310.15	4990.00	105.25
310.15	5490.00	104.39
315.15	2160.00	109.82
315.15	2580.00	108.66
315.15	3100.00	109.00
315.15	3480.00	108.23
315.15	4030.00	107.36
315.15	4460.00	106.26
315.15	4990.00	106.55
315.15	5490.00	105.83
320.15	2160.00	112.17
320.15	2580.00	111.69
320.15	3100.00	111.64
320.15	3480.00	110.44
320.15	4030.00	109.53
320.15	4460.00	108.18
320.15	4990.00	107.94
320.15	5490.00	107.46
325.15	2580.00	114.86
325.15	3100.00	114.09
325.15	3480.00	112.89
325.15	4030.00	111.88
325.15	4460.00	110.87
325.15	4990.00	109.67
325.15	5490.00	109.34
330.15	2580.00	117.79
330.15	3100.00	116.59
330.15	3480.00	115.92
330.15	4030.00	114.57
330.15	4460.00	114.00
330.15	4990.00	112.07
330.15	5490.00	111.50
335.15	3100.00	120.68
335.15	3480.00	119.81
335.15	4030.00	117.99
335.15	4460.00	117.51
335.15	4990.00	115.25
335.15	5490.00	114.14
340.15	3100.00	129.47
340.15	3480.00	125.24
340.15	4030.00	122.65
340.15	4460.00	121.40

340.15	4990.00	119.28
340.15	5490.00	117.41
345.15	3480.00	132.60
345.15	4030.00	128.70
345.15	4460.00	126.06
345.15	4990.00	124.23
345.15	5490.00	121.69
350.15	4030.00	136.59
350.15	4460.00	132.45
350.15	4990.00	130.05
350.15	5490.00	127.26
355.15	4030.00	148.79
355.15	4460.00	142.50
355.15	4990.00	136.68
355.15	5490.00	134.37
360.15	4460.00	159.27
360.15	4990.00	147.49
360.15	5490.00	142.78

Reference *https://www.doi.org/10.1021/acs.jced.5b00346*

Sources

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Vapor-liquid equilibria of fluoroethane (HFC-161) + 2,3,3,3- tetrafluoroprop - 1 -ene (HFO-1234yf):	https://www.doi.org/10.1016/j.fluid.2015.02.014
Measurement and Correlation of Isothermal Vapor Liquid Equilibrium of Fluoroethane + Dimethyl Ether + Triethylene Glycol, 1,1-Difluoroethane + Dimethyl Ether Triethylene Glycol, and 1,1-Difluoroethane + N-Methyl-2-pyrrolidone Systems:	https://www.doi.org/10.1021/acs.jced.5b00782
Isothermal vapor-liquid equilibrium data for the binary mixture difluoromethane (HFC-32) + ethyl fluoride (HFC-161) over a temperature range from 253.15 to 303.15 K:	https://www.doi.org/10.1016/j.fluid.2010.09.016
Vapor-liquid equilibria for binary mixtures of difluoromethane (R32) + fluoroethane (R161) and fluoroethane (R161) + trans-1,3,3,3-tetrafluoropropene (R1234ze(E)):	https://www.doi.org/10.1016/j.jct.2017.10.015
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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Measurement and Correlation of Isothermal Vapor-Liquid Equilibrium of Fluoroethane + N,N-Dimethylacetamide, Fluoroethane + N-Methyl-2-pyrrolidone, and 1,1,1,2-Tetrafluoroethane + N,N-Dimethylacetamide Systems:	https://www.doi.org/10.1021/je4007822
Viscosity of Gaseous Ethyl Fluoride (HFC-161):	https://www.doi.org/10.1016/j.fluid.2014.10.023
Vapor-Liquid Equilibria of the Fluoroethane (R161) + 1,1,1,2-Tetrafluoroethane (R134a) System at Various Temperatures from (253.15 to 292.92) K:	https://www.doi.org/10.1021/je800505y
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Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

af:	Acentric Factor
affp:	Proton affinity
basg:	Gas basicity
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dm:	Dipole Moment
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions

hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
kvisc:	Kinematic viscosity
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rhog:	Gas Density
rhol:	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
zc:	Critical Compressibility