Propene

Other names:	1-PROPENE
	1-Propylene
	CH3CH=CH2
	HC-1270
	METHYLETHYLENE
	Methylethene
	NCI-C50077
	PROPYLENE
	R 1270
	UN 1077
Inchi:	InChI=1S/C3H6/c1-3-2/h3H,1H2,2H3
InchiKey:	QQONPFPTGQHPMA-UHFFFAOYSA-N
Formula:	C3H6
SMILES:	C=CC
Mol. weight [g/mol]:	42.08
CAS:	115-07-1

Physical Properties

Property code	Value	Unit	Source
af	0.1440		KDB
affp	751.60	kJ/mol	NIST Webbook
aigt	770.37	K	KDB
basg	722.70	kJ/mol	NIST Webbook
chg	-2057.70 ± 0.60	kJ/mol	NIST Webbook
chg	-2057.80 ± 1.10	kJ/mol	NIST Webbook
dm	0.40	debye	KDB
fll	2.00	% in Air	KDB
flu	11.00	% in Air	KDB
fpo	165.37	K	KDB
gf	62.76	kJ/mol	KDB
gyrad	2.2280		KDB
hf	20.41	kJ/mol	NIST Webbook
hf	20.41	kJ/mol	NIST Webbook
hf	20.43	kJ/mol	KDB
hfus	2.25	kJ/mol	Joback Method
hvap	16.04	kJ/mol	NIST Webbook
ie	10.20	eV	NIST Webbook

ie	9.72	eV	NIST Webbook
ie	9.73 ± 0.01	eV	NIST Webbook
ie	9.73	eV	NIST Webbook
ie	9.69 ± 0.09	eV	NIST Webbook
ie	9.86	eV	NIST Webbook
ie	9.70 ± 0.10	eV	NIST Webbook
ie	9.73 ± 0.01	eV	NIST Webbook
ie	9.74 ± 0.00	eV	NIST Webbook
ie	9.90	eV	NIST Webbook
ie	9.72	eV	NIST Webbook
ie	9.73 ± 0.02	eV	NIST Webbook
ie	9.74 ± 0.01	eV	NIST Webbook
ie	9.69	eV	NIST Webbook
ie	9.76	eV	NIST Webbook
ie	9.73 ± 0.01	eV	NIST Webbook
ie	9.74	eV	NIST Webbook
ie	9.73 ± 0.02	eV	NIST Webbook
ie	9.73	eV	NIST Webbook
ie	9.73 ± 0.01	eV	NIST Webbook
ie	9.91 ± 0.01	eV	NIST Webbook
ie	10.20	eV	NIST Webbook
ie	10.03	eV	NIST Webbook
ie	9.74	eV	NIST Webbook
ie	9.70	eV	NIST Webbook
log10ws	-1.08		Estimated Solubility Method
logp	1.192		Crippen Method
mcvol	48.830	ml/mol	McGowan Method
nfpaf	%!d(float64=4)		KDB
nfpah	%!d(float64=1)		KDB
nfpas	%!d(float64=1)		KDB
pc	4600.00 ± 30.00	kPa	NIST Webbook
pc	4621.00 ± 15.19	kPa	NIST Webbook
pc	4579.00 ± 15.00	kPa	NIST Webbook
pc	4664.60 ± 200.00	kPa	NIST Webbook
pc	4630.00	kPa	Gas-Liquid Critical Properties of Ethylene + Hydrogen and Propylene + Hydrogen Binary Mixtures
pc	4594.68 ± 33.33	kPa	NIST Webbook
pc	4600.00	kPa	KDB
pt	950.00 ± 15.00	kPa	NIST Webbook
pt	9.50e-07	kPa	KDB
rhoc	228.07 ± 1.26	kg/m3	NIST Webbook
rhoc	223.40 ± 15.15	kg/m3	NIST Webbook
rhoc	233.50 ± 2.95	kg/m3	NIST Webbook

rinpol	286.00		NIST Webbook
rinpol	289.00		NIST Webbook
rinpol	283.30		NIST Webbook
rinpol	287.00		NIST Webbook
rinpol	289.00		NIST Webbook
rinpol	287.00		NIST Webbook
rinpol	287.00		NIST Webbook
rinpol	300.00		NIST Webbook
rinpol	288.00		NIST Webbook
rinpol	289.00		NIST Webbook
rinpol	283.00		NIST Webbook
rinpol	290.00		NIST Webbook
rinpol	295.00		NIST Webbook
rinpol	294.00		NIST Webbook
rinpol	294.00		NIST Webbook
rinpol	294.00		NIST Webbook
rinpol	295.00		NIST Webbook
rinpol	295.00		NIST Webbook
rinpol	295.00		NIST Webbook
rinpol	295.00		NIST Webbook
rinpol	298.00		NIST Webbook
rinpol	292.00		NIST Webbook
rinpol	288.00		NIST Webbook
rinpol	290.00		NIST Webbook
rinpol	290.00		NIST Webbook
rinpol	283.00		NIST Webbook
rinpol	290.00		NIST Webbook
rinpol	290.00		NIST Webbook
rinpol	283.00		NIST Webbook
rinpol	310.00		NIST Webbook
rinpol	280.00		NIST Webbook
rinpol	290.00		NIST Webbook
rinpol	288.00		NIST Webbook
rinpol	290.00		NIST Webbook
sl	195.70	J/mol×K	NIST Webbook
tb	225.46	K	KDB
tc	364.90	K	KDB
tf	88.25 ± 1.00	K	NIST Webbook
tf	87.90 ± 0.40	K	NIST Webbook
tf	87.90	K	KDB
tf	87.95 ± 0.60	K	NIST Webbook
tf	88.00 ± 0.30	K	NIST Webbook
tt	87.89	K	KDB
vc	0.185	m3/kmol	KDB

vc	0.192 ± 0.005	m3/kmol	NIST Webbook
vc	0.185	m3/kmol	NIST Webbook
zc	0.2798850		KDB
zra	0.28		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	96.18	J/mol×K	510.00	NIST Webbook
cpg	58.45	J/mol×K	258.00	NIST Webbook
cpg	86.09	J/mol×K	440.00	NIST Webbook
cpg	94.76	J/mol×K	500.00	NIST Webbook
cpg	91.91	J/mol×K	480.00	NIST Webbook
cpg	44.52	J/mol×K	148.20	NIST Webbook
cpg	45.44	J/mol×K	157.60	NIST Webbook
cpg	87.44 ± 0.17	J/mol×K	448.15	NIST Webbook
cpg	52.22	J/mol×K	213.10	NIST Webbook
cpg	53.09	J/mol×K	220.10	NIST Webbook
cpg	53.68	J/mol×K	223.70	NIST Webbook
cpg	91.18 ± 0.18	J/mol×K	473.15	NIST Webbook
cpg	83.61 ± 0.17	J/mol×K	423.15	NIST Webbook
cpg	83.17	J/mol×K	420.00	NIST Webbook
cpg	89.02	J/mol×K	460.00	NIST Webbook
cpg	59.78	J/mol×K	270.00	NIST Webbook
cpg	80.15	J/mol×K	400.00	NIST Webbook
cpg	77.14	J/mol×K	380.00	NIST Webbook
cpg	79.85 ± 0.16	J/mol×K	378.15	NIST Webbook
cpg	75.79 ± 0.15	J/mol×K	373.15	NIST Webbook
cpg	75.02 ± 0.08	J/mol×K	367.11	NIST Webbook
cpg	74.47 ± 0.15	J/mol×K	365.15	NIST Webbook
cpg	61.45	J/mol×K	280.00	NIST Webbook
cpg	71.78 ± 0.14	J/mol×K	348.15	NIST Webbook
cpg	71.03	J/mol×K	340.00	NIST Webbook
cpg	70.04 ± 0.17	J/mol×K	333.86	NIST Webbook
cpg	67.88 ± 0.14	J/mol×K	323.15	NIST Webbook
cpg	67.89	J/mol×K	320.00	NIST Webbook
cpg	64.71	J/mol×K	300.00	NIST Webbook
cpg	64.73 ± 0.13	J/mol×K	299.33	NIST Webbook
cpg	63.79 ± 0.13	J/mol×K	298.15	NIST Webbook
cpg	63.43	J/mol×K	291.10	NIST Webbook
cpg	74.13	J/mol×K	360.00	NIST Webbook

cpg	60.08 ± 0.13	J/mol×K	272.29	NIST Webbook
cpl	102.00	J/mol×K	298.15	NIST Webbook
cpl	90.00	J/mol×K	210.30	NIST Webbook
cpl	92.09	J/mol×K	230.00	NIST Webbook
cpl	98.90	J/mol×K	300.00	NIST Webbook
dvisc	0.0001972	Pa×s	217.08	Joback Method
dvisc	0.0002661	Pa×s	193.27	Joback Method
dvisc	0.0006501	Pa×s	145.63	Joback Method
dvisc	0.0003906	Pa×s	169.45	Joback Method
dvisc	0.0001551	Pa×s	240.90	Joback Method
dvisc	0.0013205	Pa×s	121.81	Joback Method
dvisc	0.0001273	Pa×s	264.72	Joback Method
hfust	3.00	kJ/mol	87.85	NIST Webbook
hfust	2.93	kJ/mol	88.20	NIST Webbook
hfust	2.93	kJ/mol	88.20	NIST Webbook
hfust	3.00	kJ/mol	87.85	NIST Webbook
hfust	2.93	kJ/mol	88.20	NIST Webbook
hfust	3.00	kJ/mol	87.85	NIST Webbook
hvapt	22.20	kJ/mol	132.50	NIST Webbook
hvapt	18.50	kJ/mol	298.50	NIST Webbook
hvapt	18.70	kJ/mol	249.50	NIST Webbook
hvapt	19.20	kJ/mol	201.50	NIST Webbook
hvapt	18.70	kJ/mol	330.00	NIST Webbook
hvapt	18.70	kJ/mol	360.50	NIST Webbook
hvapt	18.42	kJ/mol	225.35	NIST Webbook
hvapt	19.60	kJ/mol	196.00	NIST Webbook
hvapt	19.30	kJ/mol	259.50	NIST Webbook
hvapt	18.80	kJ/mol	344.00	NIST Webbook
hvapt	18.42	kJ/mol	225.50	NIST Webbook
hvapt	18.41	kJ/mol	225.70	KDB
pvap	873.00	kPa	287.57	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K

pvap	2047.90	kPa	323.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	1465.30	kPa	308.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	1012.90	kPa	293.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	428.70	kPa	263.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K
pvap	1015.90	kPa	293.15	Vapor-Liquid Equilibria on Four Binary Systems: 2-Phenylpropionaldehyde + Phenol, Propylene Glycol Monomethyl Ether + Nitroethane, Dimethyl Ether + Propylene, and N-Butyric Acid + Propionic Acid
pvap	307.20	kPa	253.05	Vapor-Liquid Equilibria on Four Binary Systems: 2-Phenylpropionaldehyde + Phenol, Propylene Glycol Monomethyl Ether + Nitroethane, Dimethyl Ether + Propylene, and N-Butyric Acid + Propionic Acid

pvap	1308.20	kPa	303.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture Difluoromethane (HFC-32) + Propylene (R-1270)
pvap	1650.80	kPa	313.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture Difluoromethane (HFC-32) + Propylene (R-1270)
pvap	1020.20	kPa	293.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture Difluoromethane (HFC-32) + Propylene (R-1270)
pvap	781.20	kPa	283.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture Difluoromethane (HFC-32) + Propylene (R-1270)
pvap	587.80	kPa	273.15	Measurement of Vapor-Liquid Equilibria for the Binary Mixture Difluoromethane (HFC-32) + Propylene (R-1270)
pvap	2058.90	kPa	323.27	Isothermal Vapor-Liquid Equilibrium and Excess Enthalpy Data for the Binary Systems Water + 1,2-Ethanediol and Propene + Acetophenone
pvap	673.60	kPa	278.15	Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propene Binary System from (263.15 to 323.15) K

pvap	2239.00	kPa	327.27	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K
pvap	2039.00	kPa	322.91	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K
pvap	1854.00	kPa	318.36	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K
pvap	1691.00	kPa	314.06	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K

pvap	1458.00	kPa	307.67	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K
pvap	1152.00	kPa	298.02	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K
pvap	1028.00	kPa	293.48	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K
pvap	769.00	kPa	282.97	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K

pvap	2897.31	kPa	340.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	2370.92	kPa	330.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	1919.12	kPa	320.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	1533.97	kPa	310.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	

pvap	1208.64	kPa	300.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	936.86	kPa	290.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	712.83	kPa	280.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	531.01	kPa	270.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	

pvap	386.13	kPa	260.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	273.12	kPa	250.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	187.14	kPa	240.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	123.61	kPa	230.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	

pvap	78.23	kPa	220.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	47.11	kPa	210.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	26.76	kPa	200.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	
pvap	14.18	kPa	190.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter	

pvap	6.93	kPa	180.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter
pvap	3.07	kPa	170.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter
pvap	1.21	kPa	160.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter
pvap	0.41	kPa	150.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter

pvap	0.12	kPa	140.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter
pvap	0.03	kPa	130.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter
pvap	5.20e-03	kPa	120.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter
pvap	1.10e-03	kPa	110.00	Measurement of the (p,.rho.,T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter

pvap	1652.20	kPa	313.15	Measurement of vapor liquid equilibria for the binary mixture of propylene (R-1270) + propane (R-290)
pvap	1307.60	kPa	303.15	Measurement of vapor liquid equilibria for the binary mixture of propylene (R-1270) + propane (R-290)
pvap	678.50	kPa	278.15	Measurement of vapor liquid equilibria for the binary mixture of propylene (R-1270) + propane (R-290)
pvap	586.00	kPa	273.15	Measurement of vapor liquid equilibria for the binary mixture of propylene (R-1270) + propane (R-290)
pvap	780.80	kPa	283.15	Measurement of vapor liquid equilibria for the binary mixture of propylene (R-1270) + propane (R-290)
pvap	1291.00	kPa	302.83	Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K
pvap	1019.00	kPa	293.15	Measurement of vapor liquid equilibria for the binary mixture of propylene (R-1270) + propane (R-290)
rhol	612.00	kg/m3	223.00	KDB
sfust	33.30	J/mol×K	88.20	NIST Webbook
sfust	34.18	J/mol×K	87.85	NIST Webbook
sfust	34.18	J/mol×K	87.85	NIST Webbook
srf	0.02	N/m	233.20	KDB

svapt	81.73	J/mol×K	225.35	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.41198e+01
Coeff. B	-1.97958e+03
Coeff. C	-1.72550e+01
Temperature range (K), min.	160.37
Temperature range (K), max.	364.21

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	5.20560e+01
Coeff. B	-3.41762e+03
Coeff. C	-6.06433e+00
Coeff. D	1.13944e-05
Temperature range (K), min.	89.00
Temperature range (K), max.	364.76

Datasets

Speed of sound, m/s

Temperature, K - Fluid (supercritical or subcritical phases)	Pressure, kPa - Fluid (supercritical or subcritical phases)	Speed of sound, m/s - Fluid (supercritical or subcritical phases)
240.01	1302.95	1101.184
240.01	2103.60	1108.727
240.01	3104.34	1117.981
240.01	4105.03	1127.052
240.01	5105.72	1135.947
240.01	6106.44	1144.672

240.00	7107.33	1153.244
240.00	8108.06	1161.649
240.00	9108.71	1169.913
240.00	10109.30	1178.038
240.00	12611.00	1197.777
240.00	15112.70	1216.761
240.00	17613.80	1235.067
240.00	20115.50	1252.744
240.00	25118.70	1286.456
240.00	30122.10	1318.218
240.00	35125.50	1348.316
240.00	40128.90	1376.953
240.00	45132.30	1404.298
240.00	50135.80	1430.49
240.00	60143.90	1479.896
260.00	1303.35	970.6167
260.00	2103.91	979.8807
260.00	3104.55	991.1728
260.00	4105.29	1002.157
260.00	5106.05	1012.855
260.00	6106.61	1023.292
260.00	7107.25	1033.466
260.00	8107.79	1043.406
260.00	9108.24	1053.122
260.00	10108.60	1062.635
260.00	12612.70	1085.589
260.00	15114.30	1107.451
260.00	17616.00	1128.358
260.00	20117.70	1148.412
260.00	25120.80	1186.29
260.00	30124.20	1221.63
260.00	35127.60	1254.829
260.00	40130.90	1286.199
260.00	45134.30	1315.977
260.00	50137.70	1344.352
260.00	60144.70	1397.522
260.00	70151.70	1446.691
260.00	80158.30	1492.558
260.00	90165.40	1535.614
260.00	100172.00	1576.274
280.00	1301.64	836.3895
280.00	2102.40	848.1849
280.00	3103.25	862.3844
280.00	4104.04	876.0391

280.00	5104.90	889.1962
280.00	6105.80	901.9084
280.00	7107.30	914.226
280.00	8108.06	926.147
280.00	9108.75	937.7206
280.00	10109.50	948.9727
280.00	12611.20	975.844
280.00	15112.90	1001.134
280.00	17613.00	1025.03
280.00	20116.60	1047.822
280.00	25118.10	1090.299
280.00	30122.10	1129.497
280.00	35125.60	1165.965
280.00	40129.10	1200.175
280.00	45132.60	1232.436
280.00	50137.50	1263.053
280.00	60144.50	1319.965
280.00	70151.40	1372.233
280.00	80157.10	1420.745
280.00	90163.80	1466.06
280.00	100171.00	1508.713
300.00	1402.74	696.0055
300.00	1402.49	696.0019
300.00	2102.73	709.9808
300.00	3103.18	728.8441
300.00	4103.79	746.5981
300.00	5104.16	763.3956
300.00	6104.72	779.3623
300.00	7107.16	794.6502
300.00	8106.02	809.2137
300.00	9106.68	823.2426
300.00	10107.40	836.7487
300.00	12611.00	868.5757
300.00	15112.80	898.0009
300.00	17612.90	925.4679
300.00	20114.50	951.3014
300.00	25117.90	998.9279
300.00	30121.00	1042.26
300.00	35124.50	1082.142
300.00	40127.90	1119.233
300.00	45131.30	1153.99
300.00	50134.70	1186.769
300.00	60141.60	1247.367
300.00	70148.60	1302.641

299.99	80156.40	1353.625
300.00	90163.40	1401.096
300.00	100170.00	1445.593
320.00	2104.38	556.1954
320.00	3105.15	584.4265
320.00	4105.81	609.6331
320.00	5106.44	632.5514
320.00	6107.10	653.6827
320.00	7107.76	673.3549
320.00	8108.42	691.8119
320.00	9108.44	709.2415
320.00	10109.00	725.7727
320.00	12610.80	763.8982
320.00	15112.40	798.3686
320.00	17614.20	829.9901
320.00	20115.90	859.315
319.99	22616.10	886.7121
320.00	25119.10	912.5156
320.00	30122.60	960.177
320.00	35126.10	1003.57
320.00	40129.50	1043.576
320.00	45133.00	1080.799
320.00	50136.40	1115.7
320.00	60143.30	1179.838
320.00	70150.30	1237.921
320.00	80157.30	1291.239
320.00	90164.30	1340.678
319.99	100172.00	1386.918
340.01	4104.99	453.1596
340.01	5105.68	489.4936
340.01	6106.34	520.3782
340.01	7107.01	547.5906
340.01	8107.68	572.1165
340.01	9108.21	594.5675
340.01	10109.20	615.3622
340.01	12611.10	661.8283
340.01	15113.00	702.4814
340.01	17614.90	738.9356
340.01	20116.70	772.1799
340.01	25118.70	831.3877
340.01	30122.20	883.5328
340.01	35125.70	930.4511
340.01	40129.20	973.3167
340.01	45132.70	1012.939

340.01	50136.20	1049.877
340.01	60143.20	1117.334
340.01	70150.10	1178.042
340.02	80157.20	1233.504
340.02	90164.10	1284.765
340.02	100171.00	1332.533
360.00	5105.03	311.2621
360.00	6105.74	370.1493
360.00	30122.50	812.7998
360.00	35126.60	863.1282
360.00	7106.48	413.2767
360.00	8107.12	448.5373
360.00	9107.83	478.9194
360.00	10108.60	505.8886
360.00	12610.20	563.3187
360.00	15112.00	611.3697
360.00	17613.80	653.2581
360.00	20115.50	690.7152
360.00	25119.00	756.1986
360.00	40130.30	908.7145
360.00	45133.80	950.5766
360.00	50137.20	989.4131
360.00	60144.20	1059.921
360.00	70151.20	1123.012
360.00	80158.20	1180.418
360.00	90165.30	1233.294
360.00	100172.00	1282.448
380.00	7106.08	268.3329
380.00	7357.45	283.4828
380.00	7606.54	297.2909
380.00	7858.19	310.3168
380.00	8106.93	322.3437
380.00	9107.64	364.5579
380.00	10108.40	399.8405
380.00	12610.20	470.5486
380.00	15112.00	526.7248
380.00	17612.70	574.2551
380.00	20115.60	615.9259
380.00	25119.30	687.4295
380.00	30122.80	748.2189
380.00	35126.40	801.6801
380.00	40129.90	849.7384
380.00	45133.60	893.6203
380.00	50137.20	934.1499

380.00	60144.20	1007.369
380.00	70151.90	1072.573
380.00	80159.00	1131.68
380.00	90166.20	1185.973
380.00	100173.00	1236.348
400.00	10108.40	309.3001
400.00	11109.00	343.8351
400.00	12109.60	374.7474
400.00	13110.20	402.6829
400.00	14110.80	428.2085
400.00	15111.40	451.7568
400.00	25116.70	625.8106
400.00	30120.70	690.1602
400.00	35124.30	746.2882
400.00	40128.00	796.4534
400.00	45131.70	842.0517
400.00	50135.30	884.0224
400.00	16111.20	473.6279
400.00	17109.90	494.1486
400.00	18111.60	513.4833
400.00	19112.30	531.7898
400.00	20113.10	549.1977
400.00	22614.80	589.4087
400.00	60142.50	959.552
400.01	70148.40	1026.538
400.01	80155.50	1087.01
400.01	90162.60	1142.605
400.01	100170.00	1194.015
420.00	12107.30	315.0009
420.00	13108.20	341.8445
420.00	14109.00	367.291
420.00	15109.60	391.2481
420.00	16110.50	413.7903
420.00	17113.10	435.0734
420.00	18114.20	455.1739
420.00	19114.90	474.2406
420.00	20115.70	492.387
420.00	22617.60	534.318
420.00	25119.70	572.2371
420.00	30123.10	639.0872
420.00	35126.80	697.1889
420.00	40130.30	748.9529
420.00	45133.90	795.8868
420.00	50137.50	838.9913

420.00	60145.10	916.3699
420.00	70152.30	984.8194
420.00	80159.40	1046.574
300.00	2104.10	710.0426
300.00	3104.74	728.903
300.00	3105.09	728.9086
300.00	4105.75	746.6704

Reference *https://www.doi.org/10.1021/je301344y*

Temperature, K	Pressure, kPa	Speed of sound, m/s
260.00	293.11	232.483
260.00	275.35	233.169
260.00	248.96	234.363
260.00	227.97	235.295
260.00	206.56	236.232
260.00	185.32	237.147
260.00	164.45	238.028
270.00	389.41	233.762
270.00	361.31	234.964
270.00	333.53	236.13
270.00	302.89	237.393
270.00	262.89	239.005
270.00	263.03	239.0
270.00	236.28	240.061
270.00	206.19	241.233
270.00	173.01	242.506
270.00	144.04	243.598
280.00	556.25	232.732
280.00	519.72	234.242
280.00	478.89	235.889
280.00	438.30	237.487
280.00	438.33	237.486
280.00	397.57	239.056
280.00	354.13	240.694
280.00	308.73	242.368
280.00	267.79	243.845
280.00	226.29	245.315
280.00	188.35	246.636
280.00	149.29	247.972
290.00	695.54	233.484
290.00	677.98	234.169
290.00	672.07	234.402

290.00	616.94	236.509
290.00	553.22	238.872
290.00	495.22	240.952
290.00	434.96	243.061
290.00	372.80	245.178
290.00	313.39	247.152
290.00	257.68	248.961
290.00	199.13	250.82
290.00	141.01	252.628
300.00	960.98	230.066
300.00	903.31	232.289
300.00	826.40	235.145
300.00	740.35	238.219
300.00	661.10	240.945
300.00	582.66	243.559
300.00	505.72	246.037
300.00	425.25	248.556
300.00	344.40	251.013
300.00	260.81	253.485
300.00	182.30	255.747
300.00	134.71	257.089
310.00	952.69	237.373
310.00	906.76	238.902
310.00	810.73	242.008
310.00	713.38	245.043
310.00	623.06	247.765
310.00	520.89	250.748
310.00	424.89	253.463
310.00	325.91	256.182
310.00	235.24	258.606
310.00	142.07	261.046
320.00	976.94	243.091
320.00	905.02	245.205
320.00	834.83	247.22
320.00	756.59	249.417
320.00	677.09	251.597
320.00	596.12	253.766
320.00	509.07	256.044
320.00	425.07	258.192
320.00	349.85	260.081
320.00	279.66	261.8119
320.00	210.07	263.494
320.00	142.67	265.102
330.00	1001.35	248.498

330.00	912.04	250.844
330.00	821.61	253.162
330.00	732.74	255.39
330.00	642.65	257.599
330.00	550.82	259.806
330.00	455.62	262.043
330.00	380.89	263.766
330.00	302.35	265.548
330.00	227.66	267.217
330.00	151.93	268.885

Reference *https://www.doi.org/10.1021/je500424b*

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C115071&Units=SI
Henry's Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, Isobutane, 1-Butene, Isobutene, trans-2-Butene, and 1,3-butadiene in 2-propanol at 250-330 K:	https://www.doi.org/10.1021/je0342116
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Propylene and Propane Solubility in Imidazolium, Pyridinium, and Tetralkylammonium Based Ionic Liquids Containing a Silver Salt:	https://www.doi.org/10.1021/je301368x
Henry's constants and infinite dilution activity coefficients of propane, propene, butane, isobutane, 1-butene, isobutene, trans-2-butene and 1,3-butadiene in isobutanol and tert-butanol:	https://www.doi.org/10.1016/j.jct.2004.05.010
Henry's Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethyl Ether, Chloroethane, and 1,1-Difluoroethane in Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, and Styrene:	https://www.doi.org/10.1021/je060395n
Measurement of the (p, rho, T) relation of propane, propylene, n-butane, and isobutane in the temperature range from (95 to 340) K at pressures up to 12 MPa using an accurate two-sinker densimeter:	https://www.doi.org/10.1016/j.jct.2004.07.017
Vapor-Liquid Equilibrium and Excess Enthalpy Data for the Binary Systems Methanol + Dimethyl Ether and Propene + Dimethyl Ether at Temperatures from (298 to 323) K:	https://www.doi.org/10.1021/je0301242
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Isothermal phase (vapour + liquid) equilibrium data for binary mixtures of propene (R1270) with either 1,1,2,3,3,3-hexafluoro-1-propene (R1216) or 2,2,3-trifluoro-3-(trifluoromethyl)oxirane in the temperature range of (279 to 318) K:	https://www.doi.org/10.1016/j.jct.2015.06.017
Liquid densities and viscosities of toluene with ethylene or propylene at temperatures to 330 K and pressures to 20 MPa:	https://www.doi.org/10.1016/j.fluid.2019.06.022
Experimental and Modeling of the Propene Solubility in the Heptane and Methylbenzene Solvents:	https://www.doi.org/10.1021/je5002347
Speed of Sound Measurements Using a Cylindrical Resonator for Gaseous Carbon Dioxide and Propene:	https://www.doi.org/10.1021/je500424b
Estimated Solubility Method:	http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt
Phase Behavior and Densities of Propylene + Hexane Binary Mixtures to 585 K and 70 MPa:	https://www.doi.org/10.1021/acs.jced.6b00181
Measurements of the Speed of Sound in Propene in the Liquid and Supercritical Regions:	https://www.doi.org/10.1021/je301344y
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Henry's constants and infinite dilution activity coefficients of propane, propene, butane, isobutane, 1-butene, isobutene, trans-2-butene and 1,3-butadiene in 1-pentanol, 2-pentanol and 3-pentanol:	https://www.doi.org/10.1016/j.jct.2004.11.005
Henry's law constants and infinite dilution activity coefficients of propane, propene, butane, isobutane, 1-butene, isobutene, trans-2-butene, and 1,3-butadiene in 2-methyl-1-butanol, 3-methyl-1-butanol, and 2-methyl-2-butanol:	https://www.doi.org/10.1016/j.fluid.2005.12.001
Henry's law constants of propane, propene, butane, and 2-methylpropane:	https://www.doi.org/10.1021/je050343i
Henry's Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethyl Ether, Chloroethane, and 1,1-Difluoroethane:	https://www.doi.org/10.1021/je0497698
Measurement of Vapor-Liquid Equilibria for the Binary Mixture of Difluoromethane (HFC-32) + Propylene (R-1270):	https://www.doi.org/10.1021/je700270d
Henry's Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethyl Ether, Chloroethane, and 1,1-Difluoroethane in Tetrahydropyran:	https://www.doi.org/10.1021/je100529s
Gas Solubility Properties of Ethylene + Propylene + 1-n-Butyl-3-methylimidazolium Bis(trifluoromethylsulfonyl)imide Ionic Liquid:	https://www.doi.org/10.1021/je9009199
Henry's Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethyl Ether, Chloroethane, and 1,1-Difluoroethane in 2-Methylphenol, 3-Methylphenol, and 4-Methylphenol:	https://www.doi.org/10.1021/je050357o

KDB:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=185
Henry's constants and infinite dilution activity coefficients of propane, propene, butane, isobutene, 1-butene, isobutane, trans-2-butene and 1,3-butadiene in 1-propanol at T = (260 to 340) K:	https://www.doi.org/10.1016/j.jct.2003.08.018
Vapor-Liquid Equilibria on Four Binary Systems: 2-Phenylpropionaldehyde + Propylene, Propylene + Nitroethane, Dimethyl Ether + 2-Propanol, and N-Butyric Acid + Propionic Acid:	https://www.doi.org/10.1021/je050327l
Liquid Density and Bubble Pressure Measurements for the Propylene + 2-Propanol System:	https://www.doi.org/10.1021/je800017j
Liquid Density Measurements for the Propylene + 2-Propanol + Water System:	https://www.doi.org/10.1021/je900214y
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=185
Isothermal Vapor-Liquid Equilibrium Data for the Hexafluoropropylene (R1216) + Propylene System at Temperatures from (263.17 to 353.14) K:	https://www.doi.org/10.1021/je900703f
Phase behavior and densities of propylene + toluene and ethylene + toluene systems to 580 K and 70 MPa:	https://www.doi.org/10.1016/j.fluid.2017.06.022
Isothermal Vapor-Liquid Equilibrium and Excess Enthalpy Data for the Binary Systems Water + 1,2-Ethanediol and Propene + Acetophenone:	https://www.doi.org/10.1021/je0342522
Henry's Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, Isobutane, 1-Butene, Isobutene, trans-2-Butene and 1,3-Butadiene in 1-Butanol and 2-Butanol at (250 to 330) K:	https://www.doi.org/10.1021/je034265f
(Vapour + liquid + liquid) equilibria and excess molar enthalpies of binary and ternary mixtures of isopropanol, water, and propylene:	https://www.doi.org/10.1016/j.jct.2007.12.002
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Henry's Law Constants and Infinite Dilution Activity Coefficients of Propane, Propene, Butane, 2-Methylpropane, 1-Butene, 2-Methylpropene, trans-2-Butene, cis-2-Butene, 1,3-Butadiene, Dimethyl Ether, Chloroethane, and 1,1-Difluoroethane in 2-Propen-1-ol:	https://www.doi.org/10.1021/je0502647
Measurement of Vapor-Liquid Equilibria for the Pentafluoroethane + Propylene Binary System from (263.15 to 323.15) K:	https://www.doi.org/10.1021/je100049k
Measurement of vapor liquid equilibria for the binary mixture of propylene (R1270) + propane (R-290):	https://www.doi.org/10.1016/j.fluid.2006.03.009
Effect of association with impurities in ammonia purification:	https://www.doi.org/10.1016/j.fluid.2015.07.034
Experimental measurement and thermodynamic modeling of propylene and propane solubility in N-methyl pyrrolidone (NMP):	https://www.doi.org/10.1016/j.fluid.2014.12.031
KDB Pure (Korean Thermophysical Properties Databank):	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=185

Legend

af:	Acentric Factor
affp:	Proton affinity
aigt:	Autoignition Temperature
basg:	Gas basicity
chg:	Standard gas enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dm:	Dipole Moment
dvisc:	Dynamic viscosity
fll:	Lower Flammability Limit
flu:	Upper Flammability Limit
fpo:	Flash Point (Open Cup Method)
gf:	Standard Gibbs free energy of formation
gyrad:	Radius of Gyration
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy

log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
nfpaf:	NFPA Fire Rating
nfpah:	NFPA Health Rating
nfpas:	NFPA Safety Rating
pc:	Critical Pressure
pt:	Triple Point Pressure
pvap:	Vapor pressure
rhoc:	Critical density
rhol:	Liquid Density
rinpol:	Non-polar retention indices
sfust:	Entropy of fusion at a given temperature
sl:	Liquid phase molar entropy at standard conditions
speedsl:	Speed of sound in fluid
srf:	Surface Tension
svapt:	Entropy of vaporization at a given temperature
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
vc:	Critical Volume
zc:	Critical Compressibility
zra:	Rackett Parameter