3-Pentanol

Other names:	(C2H5)2CHOH
	1-Ethyl-1-propanol
	3-PENTYL ALCOHOL
	DIETHYL CARBINOL
	ISOAMYL ALCOHOL
	NSC 8654
	Pentan-3-ol
	Pentanol-3
	UN 2706
	sec-Amyl alcohol
	sec-Pentanol
	sec-Pentyl alcohol
Inchi:	InChI=1S/C5H12O/c1-3-5(6)4-2/h5-6H,3-4H2,1-2H3
InchiKey:	AQIXEPGDORPWBJ-UHFFFAOYSA-N
Formula:	C5H12O
SMILES:	CCC(O)CC
Mol. weight [g/mol]:	88.15
CAS:	584-02-1

Physical Properties

Property code	Value	Unit	Source
chl	-3312.30 ± 0.46	kJ/mol	NIST Webbook
gf	-148.04	kJ/mol	Joback Method
hf	-314.70 ± 1.10	kJ/mol	NIST Webbook
hf	-318.60 ± 1.50	kJ/mol	NIST Webbook
hf	-317.20	kJ/mol	NIST Webbook
hfl	-370.30 ± 0.59	kJ/mol	NIST Webbook
hfl	-368.90 ± 0.79	kJ/mol	NIST Webbook
hfus	1.66	kJ/mol	Heat Capacities in the Solid and in the Liquid Phase of Isomeric Pentanols
hvap	51.70 ± 1.30	kJ/mol	NIST Webbook
hvap	53.20 ± 0.10	kJ/mol	NIST Webbook
hvap	52.90	kJ/mol	NIST Webbook
hvap	54.03	kJ/mol	NIST Webbook
ie	9.78	eV	NIST Webbook
ie	9.76 ± 0.02	eV	NIST Webbook

ie	9.73	eV	NIST Webbook
ie	9.78	eV	NIST Webbook
ie	10.25	eV	NIST Webbook
ie	9.78 ± 0.07	eV	NIST Webbook
log10ws	-0.24		Aqueous Solubility Prediction Method
log10ws	-0.24		Estimated Solubility Method
logp	1.167		Crippen Method
mcvol	87.180	ml/mol	McGowan Method
pc	3916.03	kPa	Joback Method
rhoc	270.61	kg/m3	NIST Webbook
rhoc	270.61 ± 20.27	kg/m3	NIST Webbook
rinpol	688.00		NIST Webbook
rinpol	710.00		NIST Webbook
rinpol	703.00		NIST Webbook
rinpol	712.00		NIST Webbook
rinpol	687.00		NIST Webbook
rinpol	661.00		NIST Webbook
rinpol	685.00		NIST Webbook
rinpol	665.00		NIST Webbook
rinpol	685.00		NIST Webbook
rinpol	685.00		NIST Webbook
rinpol	689.00		NIST Webbook
rinpol	682.00		NIST Webbook
rinpol	671.00		NIST Webbook
rinpol	676.50		NIST Webbook
rinpol	689.00		NIST Webbook
rinpol	669.20		NIST Webbook
rinpol	687.00		NIST Webbook
rinpol	693.00		NIST Webbook
rinpol	683.00		NIST Webbook
rinpol	689.00		NIST Webbook
rinpol	689.00		NIST Webbook
rinpol	690.00		NIST Webbook
rinpol	684.00		NIST Webbook
rinpol	687.00		NIST Webbook
rinpol	669.00		NIST Webbook
rinpol	678.00		NIST Webbook
rinpol	680.00		NIST Webbook
rinpol	687.00		NIST Webbook
rinpol	683.00		NIST Webbook
rinpol	669.20		NIST Webbook
rinpol	712.00		NIST Webbook
rinpol	685.00		NIST Webbook

rinpol	689.00	NIST Webbook
ripol	1118.00	NIST Webbook
ripol	1113.00	NIST Webbook
ripol	1110.00	NIST Webbook
ripol	1098.00	NIST Webbook
ripol	1103.00	NIST Webbook
ripol	1111.00	NIST Webbook
ripol	1116.00	NIST Webbook
ripol	1093.00	NIST Webbook
ripol	1101.00	NIST Webbook
ripol	1110.00	NIST Webbook
ripol	1128.00	NIST Webbook
ripol	1109.00	NIST Webbook
ripol	1120.00	NIST Webbook
ripol	1111.00	NIST Webbook
ripol	1106.00	NIST Webbook
ripol	1108.00	NIST Webbook
ripol	1109.00	NIST Webbook
ripol	1104.00	NIST Webbook
ripol	1112.00	NIST Webbook
ripol	1112.00	NIST Webbook
ripol	1108.00	NIST Webbook
ripol	1116.00	NIST Webbook
ripol	1087.00	NIST Webbook
ripol	1110.00	NIST Webbook
ripol	1116.00	NIST Webbook
ripol	1112.00	NIST Webbook
ripol	1119.00	NIST Webbook
ripol	1110.00	NIST Webbook
ripol	1108.00	NIST Webbook
ripol	1112.00	NIST Webbook
ripol	1113.00	NIST Webbook
ripol	1113.00	NIST Webbook
ripol	1109.00	NIST Webbook
ripol	1111.00	NIST Webbook
ripol	1104.00	NIST Webbook
ripol	1107.00	NIST Webbook
ripol	1110.00	NIST Webbook
ripol	1104.00	NIST Webbook
ripol	1103.00	NIST Webbook
ripol	1110.00	NIST Webbook
ripol	1106.00	NIST Webbook
ripol	1112.00	NIST Webbook
ripol	1108.00	NIST Webbook

ripol	1113.00		NIST Webbook
ripol	1107.00		NIST Webbook
ripol	1100.00		NIST Webbook
ripol	1096.00		NIST Webbook
ripol	1110.00		NIST Webbook
ripol	1108.00		NIST Webbook
ripol	1108.00		NIST Webbook
ripol	1124.00		NIST Webbook
ripol	1111.00		NIST Webbook
ripol	1102.00		NIST Webbook
ripol	1097.00		NIST Webbook
ripol	1112.00		NIST Webbook
sg	382.21	J/mol×K	NIST Webbook
tb	389.15 ± 2.00	K	NIST Webbook
tb	389.30	K	NIST Webbook
tb	361.90 ± 1.50	K	NIST Webbook
tb	388.75 ± 2.00	K	NIST Webbook
tb	389.40	K	KDB
tb	386.65 ± 2.00	K	NIST Webbook
tb	388.15 ± 3.00	K	NIST Webbook
tb	391.10 ± 2.00	K	NIST Webbook
tb	386.70 ± 2.00	K	NIST Webbook
tb	385.15 ± 3.00	K	NIST Webbook
tb	388.50 ± 0.50	K	NIST Webbook
tb	387.65 ± 2.00	K	NIST Webbook
tb	388.50 ± 0.30	K	NIST Webbook
tb	388.15 ± 0.50	K	NIST Webbook
tb	389.05 ± 0.50	K	NIST Webbook
tb	389.15 ± 2.00	K	NIST Webbook
tb	390.15 ± 2.00	K	NIST Webbook
tb	389.25 ± 0.30	K	NIST Webbook
tb	388.65 ± 1.00	K	NIST Webbook
tb	390.15 ± 2.00	K	NIST Webbook
tb	387.90 ± 2.00	K	NIST Webbook
tb	386.15 ± 3.00	K	NIST Webbook
tb	389.35 ± 0.50	K	NIST Webbook
tb	388.80 ± 0.50	K	NIST Webbook
tb	387.15 ± 2.00	K	NIST Webbook
tb	388.15 ± 2.00	K	NIST Webbook
tb	387.95 ± 2.00	K	NIST Webbook
tb	389.15 ± 0.70	K	NIST Webbook
tb	385.65 ± 3.00	K	NIST Webbook
tb	389.15 ± 1.00	K	NIST Webbook
tb	388.45 ± 1.00	K	NIST Webbook

tb	387.65 ± 2.00	K	NIST Webbook
tb	387.15 ± 2.00	K	NIST Webbook
tb	387.65 ± 1.50	K	NIST Webbook
tb	389.40 ± 1.00	K	NIST Webbook
tb	388.80 ± 0.20	K	NIST Webbook
tb	388.65 ± 0.30	K	NIST Webbook
tb	388.85 ± 0.50	K	NIST Webbook
tc	559.60	K	NIST Webbook
tc	559.60 ± 0.25	K	NIST Webbook
tc	559.60 ± 0.50	K	NIST Webbook
tc	559.60	K	KDB
tf	204.00	K	KDB
tf	202.10	K	Aqueous Solubility Prediction Method
vc	0.325	m3/kmol	NIST Webbook
vc	0.325	m3/kmol	KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	216.94	J/mol×K	570.76	Joback Method
cpg	169.82	J/mol×K	405.54	Joback Method
cpg	178.43	J/mol×K	433.08	Joback Method
cpg	194.72	J/mol×K	488.15	Joback Method
cpg	202.42	J/mol×K	515.68	Joback Method
cpg	209.82	J/mol×K	543.22	Joback Method
cpg	186.73	J/mol×K	460.61	Joback Method
cpl	239.70	J/mol×K	298.00	NIST Webbook
dvisc	0.3005917	Pa×s	191.93	Joback Method
dvisc	0.0379452	Pa×s	227.53	Joback Method
dvisc	0.0026559	Pa×s	298.74	Joback Method
dvisc	0.0010745	Pa×s	334.34	Joback Method
dvisc	0.0005174	Pa×s	369.94	Joback Method
dvisc	0.0002833	Pa×s	405.54	Joback Method
dvisc	0.0083860	Pa×s	263.13	Joback Method
hfust	9.08	kJ/mol	204.20	NIST Webbook
hfust	9.08	kJ/mol	204.20	NIST Webbook
hvapt	49.60	kJ/mol	353.00	NIST Webbook
hvapt	53.60	kJ/mol	298.50	NIST Webbook
hvapt	50.20	kJ/mol	341.50	NIST Webbook
hvapt	59.90	kJ/mol	317.50	NIST Webbook

pvap	38.00	kPa	362.79	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	71.99	kPa	379.02	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	66.66	kPa	376.95	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	61.33	kPa	374.75	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	57.33	kPa	372.99	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	82.66	kPa	382.82	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	49.33	kPa	369.16	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	45.33	kPa	367.06	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	41.33	kPa	364.81	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	77.33	kPa	380.97	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	89.33	kPa	385.00	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	53.33	kPa	371.13	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	

pvap	95.99	kPa	387.06	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	97.99	kPa	387.65	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	0.23	kPa	279.05	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	0.32	kPa	282.62	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	0.74	kPa	293.45	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	0.77	kPa	293.92	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	34.66	kPa	360.62	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	

pvap	1.04	kPa	298.17	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	1.40	kPa	302.31	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	2.05	kPa	307.87	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	2.83	kPa	312.86	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	14.66	kPa	342.02	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	

pvap	4.01	kPa	318.42	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	
pvap	20.00	kPa	348.40	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	22.66	kPa	351.07	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	26.00	kPa	354.07	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	29.33	kPa	356.77	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	32.66	kPa	359.24	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	17.33	kPa	345.41	Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2	
pvap	0.47	kPa	287.46	Vapor Pressure and Its Temperature Dependence of 28 Organic Compounds: Cyclic Amines, Cyclic Ethers, and Cyclic and Open Chain Secondary Alcohols	

rfi	1.39810		318.15	Densities, Viscosities, and Refractive Indices of Binary Mixtures of Methyl Ethyl Ketone + Pentanol Isomers at Different Temperatures
rfi	1.40290		308.15	Densities, Viscosities, and Refractive Indices of Binary Mixtures of Methyl Ethyl Ketone + Pentanol Isomers at Different Temperatures
rfi	1.40470		298.15	Densities, Viscosities, and Refractive Indices of Binary Mixtures of Methyl Ethyl Ketone + Pentanol Isomers at Different Temperatures
rfi	1.40870		298.15	Phase Equilibria in the Binary and Ternary Systems Composed of Diethyl ketone, 2-Pentanone and 3-Pentanol at 101.3 kPa
rhol	832.90	kg/m3	277.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	835.70	kg/m3	273.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	835.30	kg/m3	274.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	834.90	kg/m3	274.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	834.50	kg/m3	275.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers

rhol	834.10	kg/m3	275.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	833.70	kg/m3	276.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	833.30	kg/m3	276.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	815.80	kg/m3	298.15	Asymmetric liquid-liquid criticality in the ideal volumetric mixing approximation
rhol	832.50	kg/m3	277.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	832.10	kg/m3	278.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	831.70	kg/m3	278.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	831.30	kg/m3	279.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	830.90	kg/m3	279.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	830.50	kg/m3	280.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	830.10	kg/m3	280.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	829.30	kg/m3	281.65	Temperature of maximum density for aqueous mixtures of three pentanol isomers

rhol	828.90	kg/m3	282.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers
rhol	806.90	kg/m3	308.15	Excess molar enthalpies of the binary systems: (Dibutyl ether + isomers of pentanol) at T = (298.15 and 308.15) K
rhol	815.62	kg/m3	298.15	Excess molar enthalpies of the binary systems: (Dibutyl ether + isomers of pentanol) at T = (298.15 and 308.15) K
rhol	829.70	kg/m3	281.15	Temperature of maximum density for aqueous mixtures of three pentanol isomers

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	387.70	K	99.90	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.44746e+01
Coeff. B	-2.84676e+03
Coeff. C	-9.91730e+01
Temperature range (K), min.	299.83
Temperature range (K), max.	409.85

Information	Value

Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	9.10919e+01
Coeff. B	-9.04205e+03
Coeff. C	-1.06916e+01
Coeff. D	3.55838e-06
Temperature range (K), min.	204.15
Temperature range (K), max.	547.00

Datasets

Speed of sound, m/s

Temperature, K - Liquid	Pressure, kPa - Liquid	Speed of sound, m/s - Liquid
303.15	100.00	1234.7
303.15	10000.00	1294.0
303.15	20000.00	1348.2
303.15	30000.00	1397.7
303.15	40000.00	1443.6
303.15	50000.00	1486.9
303.15	60000.00	1526.0
303.15	70000.00	1564.7
303.15	80000.00	1600.5
303.15	90000.00	1636.4
303.15	100000.00	1668.2
313.15	100.00	1194.7
313.15	10000.00	1257.0
313.15	20000.00	1313.0
313.15	30000.00	1364.7
313.15	40000.00	1411.9
313.15	50000.00	1456.0
313.15	60000.00	1498.1
313.15	70000.00	1537.4
313.15	80000.00	1574.5
313.15	90000.00	1610.2
313.15	100000.00	1644.1
323.15	100.00	1155.2
323.15	10000.00	1219.2
323.15	20000.00	1277.9

323.15	30000.00	1331.0
323.15	40000.00	1380.2
323.15	50000.00	1425.8
323.15	60000.00	1468.5
323.15	70000.00	1508.9
323.15	80000.00	1547.2
323.15	90000.00	1583.6
323.15	100000.00	1618.6
333.15	100.00	1115.9
333.15	10000.00	1182.2
333.15	20000.00	1243.1
333.15	30000.00	1298.2
333.15	40000.00	1348.6
333.15	50000.00	1395.9
333.15	60000.00	1439.4
333.15	70000.00	1480.7
333.15	80000.00	1519.8
333.15	90000.00	1556.9
333.15	100000.00	1592.2
343.15	100.00	1076.8
343.15	10000.00	1146.9
343.15	20000.00	1209.7
343.15	30000.00	1266.6
343.15	40000.00	1318.2
343.15	50000.00	1366.4
343.15	60000.00	1411.1
343.15	70000.00	1453.1
343.15	80000.00	1492.9
343.15	90000.00	1530.7
343.15	100000.00	1566.6
353.15	100.00	1036.7
353.15	10000.00	1110.4
353.15	20000.00	1176.2
353.15	30000.00	1234.1
353.15	40000.00	1287.8
353.15	50000.00	1337.3
353.15	60000.00	1383.1
353.15	70000.00	1425.8
353.15	80000.00	1466.6
353.15	90000.00	1505.0
353.15	100000.00	1541.4
363.15	100.00	997.3
363.15	10000.00	1075.3
363.15	20000.00	1143.2

363.15	30000.00	1203.5
363.15	40000.00	1258.2
363.15	50000.00	1308.3
363.15	60000.00	1355.1
363.15	70000.00	1399.6
363.15	80000.00	1440.8
363.15	90000.00	1479.7
363.15	100000.00	1516.9
373.15	100.00	957.2
373.15	10000.00	1038.9
373.15	20000.00	1109.6
373.15	30000.00	1171.5
373.15	40000.00	1228.3
373.15	50000.00	1280.1
373.15	60000.00	1328.2
373.15	70000.00	1373.1
373.15	80000.00	1415.0
373.15	90000.00	1454.6
373.15	100000.00	1492.5

Reference *https://www.doi.org/10.1016/j.jct.2005.10.002*

Sources

KDB Pure (Korean Thermophysical Properties Databank):	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=827
Phase Equilibria in the Binary and Ternary Systems Composed of Diethyl Ketone, 2-Pentanone and 3-Pentanol at 101.3 kPa:	https://www.doi.org/10.1021/je025651k
Temperature Dependence of Limiting Activity Coefficients, Henry s Law Constants, and Related Infinite Dilution Properties of Branched Pentanols in Water. Measurement, Critical Compilation, Correlation, and Recommended Data.:	https://www.doi.org/10.1021/je901063s
Study of the volumetric properties of weakly associated alcohols by means of high-pressure speed of sound measurements:	https://www.doi.org/10.1016/j.jct.2005.10.002
Vapor pressure of selected aliphatic alcohols by ebulliometry. Part 2 :	https://www.doi.org/10.1016/j.fluid.2010.06.020
Excess molar enthalpies of the binary systems: (Dibutyl ether + isomers of pentanol) at T = (298.15 and 308.15) K:	https://www.doi.org/10.1016/j.jct.2015.03.021
Heat Capacities in the Solid and in the Liquid Phase of Isomeric Pentanols:	https://www.doi.org/10.1021/je060411g
Measurement of Infinite Dilution Activity Coefficients of Alcohols, Ketones, and Aromatic Hydrocarbons in 4-Methyl-N-butylpyridinium Tetrafluoroborate and 1-Butyl-3-methylimidazolium Hexafluorophosphate by Gas-Liquid Chromatography:	https://www.doi.org/10.1021/je800246v
Henry's law constants and infinite dilution activity coefficients of cis-2-butene, dimethylether, chloroethane, and 1,1-difluoroethane in methanol, 1-propanol, 2-propanol, 1-butanol, 2-butanol, isobutanol, tert-butanol, 1-pentanol, 2-pentanol, 3-pentanol, 2-methyl-1-butanol, 3-methyl-1-butanol, and 2-methyl-2-butanol:	https://www.doi.org/10.1016/j.jct.2005.08.004
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Densities, Viscosities, and Refractive Indices of Binary Mixtures of Methyl Ethyl Ketone + Pentanol Isomers at Different Temperatures:	https://www.doi.org/10.1021/je901067c
Calculated Solubility Method:	http://pubs.acs.org/doi/suppl/10.1021/ci034243x/suppl_file/ci034243xsi20040112_053635.txt
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=827
Temperature of maximum density for aqueous mixtures of three pentanol isomers:	https://www.doi.org/10.1016/j.jct.2017.07.011
KDB:	https://www.cheric.org/files/research/kdb/mol/mol827.mol
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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C584021&Units=SI

Measurement and modeling of high-pressure (vapor + liquid) equilibria of (CO2 + alkanol) binary systems:	https://www.doi.org/10.1016/j.jct.2010.12.018
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Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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
pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhoc:	Critical density
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
sg:	Molar entropy at standard conditions
speedsl:	Speed of sound in fluid
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume