

Pentane, 3-methyl-

Other names:	(C2H5)2CHCH3 3-Methylpentane UN 1208 UN 2462
Inchi:	InChI=1S/C6H14/c1-4-6(3)5-2/h6H,4-5H2,1-3H3
InchiKey:	PFEOZHBOMNWTJB-UHFFFAOYSA-N
Formula:	C6H14
SMILES:	CCC(C)CC
Mol. weight [g/mol]:	86.18
CAS:	96-14-0

Physical Properties

Property code	Value	Unit	Source
af	0.2700		KDB
ap	342.450	K	KDB
chl	-4159.90 ± 0.88	kJ/mol	NIST Webbook
gf	-2.14	kJ/mol	KDB
hcg	4159.94	kJ/mol	KDB
hcn	3851.832	kJ/mol	KDB
hf	-171.70	kJ/mol	KDB
hf	-171.60 ± 0.96	kJ/mol	NIST Webbook
hfl	-202.00 ± 0.96	kJ/mol	NIST Webbook
hfus	7.77	kJ/mol	Joback Method
hvap	30.30 ± 0.10	kJ/mol	NIST Webbook
hvap	30.47	kJ/mol	NIST Webbook
hvap	30.19 ± 0.03	kJ/mol	NIST Webbook
hvap	30.30	kJ/mol	NIST Webbook
hvap	30.27	kJ/mol	NIST Webbook
hvap	30.30 ± 0.10	kJ/mol	NIST Webbook
ie	10.08	eV	NIST Webbook
ie	10.04	eV	NIST Webbook
ie	9.82	eV	NIST Webbook
log10ws	-3.68		Estimated Solubility Method
log10ws	-3.68		Aqueous Solubility Prediction Method
logp	2.442		Crippen Method
mcvol	95.400	ml/mol	McGowan Method

nfpaf	%!d(float64=3)		KDB
nfpah	%!d(float64=1)		KDB
pc	3124.42 ± 10.00	kPa	NIST Webbook
pc	3120.00 ± 20.00	kPa	NIST Webbook
pc	3124.00 ± 3.00	kPa	NIST Webbook
pc	3128.00 ± 2.00	kPa	NIST Webbook
pc	3116.00 ± 30.40	kPa	NIST Webbook
pc	3035.00 ± 20.26	kPa	NIST Webbook
pc	3120.00	kPa	KDB
rhoc	235.26 ± 1.72	kg/m3	NIST Webbook
rhoc	234.40 ± 5.17	kg/m3	NIST Webbook
rhoc	234.40 ± 1.72	kg/m3	NIST Webbook
rinpol	588.00		NIST Webbook
rinpol	585.00		NIST Webbook
rinpol	580.00		NIST Webbook
rinpol	582.00		NIST Webbook
rinpol	578.00		NIST Webbook
rinpol	577.56		NIST Webbook
rinpol	581.00		NIST Webbook
rinpol	583.00		NIST Webbook
rinpol	584.00		NIST Webbook
rinpol	577.00		NIST Webbook
rinpol	576.00		NIST Webbook
rinpol	582.80		NIST Webbook
rinpol	583.70		NIST Webbook
rinpol	585.00		NIST Webbook
rinpol	581.00		NIST Webbook
rinpol	581.00		NIST Webbook
rinpol	586.20		NIST Webbook
rinpol	583.80		NIST Webbook
rinpol	588.40		NIST Webbook
rinpol	590.10		NIST Webbook
rinpol	583.00		NIST Webbook
rinpol	584.40		NIST Webbook
rinpol	584.50		NIST Webbook
rinpol	584.60		NIST Webbook
rinpol	584.50		NIST Webbook
rinpol	584.20		NIST Webbook
rinpol	583.00		NIST Webbook
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rinpol	585.89	NIST Webbook
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rinpol	580.00		NIST Webbook
rinpol	584.00		NIST Webbook
rinpol	588.00		NIST Webbook
rinpol	584.00		NIST Webbook
rinpol	584.80		NIST Webbook
rinpol	588.00		NIST Webbook
ripol	581.00		NIST Webbook
ripol	577.00		NIST Webbook
sg	382.88 ± 0.67	J/mol×K	NIST Webbook
sl	292.50	J/mol×K	NIST Webbook
tb	335.85 ± 0.60	K	NIST Webbook
tb	336.50 ± 0.50	K	NIST Webbook
tb	336.35 ± 0.30	K	NIST Webbook
tb	337.15 ± 1.50	K	NIST Webbook
tb	337.00 ± 3.00	K	NIST Webbook
tb	336.43 ± 0.20	K	NIST Webbook
tb	336.35 ± 0.40	K	NIST Webbook
tb	336.35 ± 0.40	K	NIST Webbook
tb	336.42	K	KDB

tb	336.30	K	Isobaric vapor liquid equilibrium for ternary mixtures of ethanol and methylcyclohexane with 3-methylpentane and tert-butyl alcohol at 101.3 kPa
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tb	336.50	K	NIST Webbook
tb	336.40	K	NIST Webbook
tb	337.00 ± 3.00	K	NIST Webbook
tb	337.00 ± 2.00	K	NIST Webbook
tb	335.90 ± 1.50	K	NIST Webbook
tb	336.35 ± 0.50	K	NIST Webbook
tb	336.00 ± 2.00	K	NIST Webbook
tb	336.35 ± 0.50	K	NIST Webbook
tb	336.45 ± 0.10	K	NIST Webbook
tb	336.35 ± 0.30	K	NIST Webbook
tb	335.15 ± 3.00	K	NIST Webbook
tb	334.90 ± 0.50	K	NIST Webbook
tb	336.15 ± 1.00	K	NIST Webbook
tb	336.70 ± 0.30	K	NIST Webbook
tb	336.50 ± 0.30	K	NIST Webbook
tb	336.30 ± 0.30	K	NIST Webbook
tb	336.35 ± 0.50	K	NIST Webbook
tb	336.50 ± 0.50	K	NIST Webbook
tb	336.30 ± 0.15	K	NIST Webbook
tb	336.41 ± 0.05	K	NIST Webbook
tb	336.43 ± 0.02	K	NIST Webbook
tb	336.10 ± 0.10	K	NIST Webbook
tb	333.28 ± 0.07	K	NIST Webbook
tb	336.30 ± 0.30	K	NIST Webbook
tb	336.15 ± 0.60	K	NIST Webbook
tb	336.43 ± 0.05	K	NIST Webbook
tb	335.95 ± 0.60	K	NIST Webbook
tb	336.43 ± 0.02	K	NIST Webbook
tb	336.45 ± 0.50	K	NIST Webbook
tb	336.45 ± 0.50	K	NIST Webbook
tb	336.44 ± 0.10	K	NIST Webbook
tb	336.35 ± 0.50	K	NIST Webbook
tb	336.35 ± 0.50	K	NIST Webbook
tb	336.38 ± 0.20	K	NIST Webbook
tb	336.55 ± 0.50	K	NIST Webbook
tb	336.40 ± 0.30	K	NIST Webbook
tb	336.35 ± 0.50	K	NIST Webbook
tb	336.45 ± 0.30	K	NIST Webbook
tb	336.41 ± 0.20	K	NIST Webbook

tb	336.45 ± 0.20	K	NIST Webbook
tb	336.35 ± 0.10	K	NIST Webbook
tb	336.35 ± 0.50	K	NIST Webbook
tb	336.36 ± 0.15	K	NIST Webbook
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tb	336.33 ± 0.15	K	NIST Webbook
tb	336.40 ± 0.70	K	NIST Webbook
tb	336.45 ± 0.50	K	NIST Webbook
tb	336.50 ± 0.10	K	NIST Webbook
tb	335.85 ± 0.50	K	NIST Webbook
tc	504.40	K	NIST Webbook
tc	504.59 ± 0.20	K	NIST Webbook
tc	498.10 ± 0.20	K	NIST Webbook
tc	504.60	K	KDB
tc	504.70 ± 0.20	K	NIST Webbook
tc	504.40 ± 0.30	K	NIST Webbook
tc	504.62 ± 0.15	K	NIST Webbook
tc	504.60 ± 0.20	K	NIST Webbook
tc	504.60 ± 0.20	K	NIST Webbook
tf	155.15 ± 2.00	K	NIST Webbook
tf	155.15 ± 1.00	K	NIST Webbook
tf	157.10	K	Aqueous Solubility Prediction Method
tf	110.20	K	KDB
tt	110.25	K	KDB
tt	110.25 ± 0.01	K	NIST Webbook
vc	0.368	m3/kmol	KDB
vc	0.368	m3/kmol	NIST Webbook
zc	0.2736650		KDB
zra	0.27		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	207.32	J/mol×K	471.15	NIST Webbook
cpg	154.31	J/mol×K	332.10	NIST Webbook
cpg	181.71	J/mol×K	402.35	NIST Webbook
cpg	194.64	J/mol×K	436.20	NIST Webbook
cpg	168.41	J/mol×K	367.55	NIST Webbook
cpl	191.16	J/mol×K	298.15	NIST Webbook
cpl	186.80	J/mol×K	298.95	NIST Webbook

cpl	190.67	J/mol×K	298.15	NIST Webbook
cpl	187.36	J/mol×K	298.10	NIST Webbook
cpl	190.99	J/mol×K	298.15	NIST Webbook
cpl	190.77	J/mol×K	298.15	NIST Webbook
cpl	190.77	J/mol×K	298.15	NIST Webbook
cpl	190.86	J/mol×K	298.15	NIST Webbook
cpl	187.10	J/mol×K	288.19	NIST Webbook
cps	190.83	J/mol×K	298.15	NIST Webbook
dvisc	0.0002254	Pa×s	336.24	Joback Method
dvisc	0.0003009	Pa×s	303.93	Joback Method
dvisc	0.0004301	Pa×s	271.62	Joback Method
dvisc	0.0006772	Pa×s	239.31	Joback Method
dvisc	0.0012286	Pa×s	207.00	Joback Method
dvisc	0.0027783	Pa×s	174.69	Joback Method
dvisc	0.0090987	Pa×s	142.38	Joback Method
hfust	5.31	kJ/mol	110.30	NIST Webbook
hfust	5.31	kJ/mol	110.30	NIST Webbook
hvapt	28.10 ± 0.10	kJ/mol	336.00	NIST Webbook
hvapt	30.20	kJ/mol	312.50	NIST Webbook
hvapt	30.00 ± 0.01	kJ/mol	303.10	NIST Webbook
hvapt	27.00 ± 0.10	kJ/mol	353.00	NIST Webbook
hvapt	28.80 ± 0.10	kJ/mol	324.00	NIST Webbook
hvapt	29.50 ± 0.10	kJ/mol	313.00	NIST Webbook
hvapt	30.50	kJ/mol	315.50	NIST Webbook
hvapt	29.90	kJ/mol	338.50	NIST Webbook
hvapt	28.06	kJ/mol	336.40	NIST Webbook
hvapt	28.07	kJ/mol	336.40	KDB
hvapt	28.30 ± 0.10	kJ/mol	333.00	NIST Webbook
hvapt	30.00 ± 0.10	kJ/mol	303.00	NIST Webbook
kvisc	0.0000004	m2/s	298.15	Kinematic Viscosities for Ether + Alkane Mixtures: Experimental Results and UNIFAC-VISCO Parameters
kvisc	0.0000004	m2/s	313.15	Experimental and Predicted Kinematic Viscosities for Alkane + Chloroalkane Mixtures
kvisc	0.0000004	m2/s	298.15	Experimental and Predicted Kinematic Viscosities for Alkane + Chloroalkane Mixtures

kvisc	0.0000004	m2/s	313.15	Kinematic Viscosities for Ether + Alkane Mixtures: Experimental Results and UNIFAC-VISCO Parameters
kvisc	0.0000005	m2/s	283.15	Experimental and Predicted Kinematic Viscosities for Alkane + Chloroalkane Mixtures
kvisc	0.0000005	m2/s	283.15	Kinematic Viscosities for Ether + Alkane Mixtures: Experimental Results and UNIFAC-VISCO Parameters
rfi	1.37399		298.15	Liquid liquid equilibria of lactam containing binary systems
rfi	1.37386		298.15	KDB
rhoI	662.39	kg/m3	295.15	Isothermal vapour-liquid equilibrium data for binary systems of (CHF3 or C2F6) with (1-hexene or 3-methylpentane)
rhoI	660.59	kg/m3	297.15	Isothermal vapour-liquid equilibrium data for binary systems of (CHF3 or C2F6) with (1-hexene or 3-methylpentane)
rhoI	660.30	kg/m3	298.15	Excess molar enthalpies of the ternary mixtures: methyl tert-butyl ether + 3-methylpentane + (n-decane or n-dodecane) at 298.15K
rhoI	659.94	kg/m3	298.15	Excess Enthalpies of the Ternary Mixtures: Diisopropyl Ether + 3-Methylpentane + (Octane or Decane) at 298.15 K

rhoI	659.94	kg/m3	298.15	Excess enthalpies of binary mixtures of 1-hexene with some branched alkanes at the temperature 298.15 K
rhoI	664.00	kg/m3	293.00	KDB
rhoI	659.74	kg/m3	298.15	Isothermal vapour-liquid equilibrium data for binary systems of (CHF3 or C2F6) with (1-hexene or 3-methylpentane)
rhoI	664.23	kg/m3	293.15	Isothermal vapour-liquid equilibrium data for binary systems of (CHF3 or C2F6) with (1-hexene or 3-methylpentane)
rhoI	659.31	kg/m3	298.60	Isothermal vapour-liquid equilibrium data for binary systems of (CHF3 or C2F6) with (1-hexene or 3-methylpentane)
srf	0.02	N/m	298.20	KDB
tcondI	0.11	W/m×K	277.46	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondI	0.11	W/m×K	296.74	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondI	0.11	W/m×K	297.20	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)

tcondl	0.10	W/m×K	314.22	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.10	W/m×K	314.59	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.10	W/m×K	315.08	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.11	W/m×K	277.02	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.10	W/m×K	328.75	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.10	W/m×K	329.26	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.11	W/m×K	276.71	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)

tcondl	0.12	W/m×K	257.43	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.12	W/m×K	257.00	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.12	W/m×K	256.68	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.11	W/m×K	296.39	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)
tcondl	0.10	W/m×K	328.36	Thermal Conductivity and Thermal Diffusivity of Sixteen Isomers of Alkanes: C _n H _{2n+2} (n = 6 to 8)

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.42821e+01
Coeff. B	-2.95275e+03
Coeff. C	-3.08720e+01
Temperature range (K), min.	241.87
Temperature range (K), max.	360.03

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/T + C \cdot \ln(T) + D \cdot T^2$
Coeff. A	7.95641e+01
Coeff. B	-6.17296e+03
Coeff. C	-9.91026e+00
Coeff. D	9.40493e-06
Temperature range (K), min.	110.25
Temperature range (K), max.	504.43

Datasets

Mass density, kg/m3

Pressure, kPa - Liquid	Temperature, K - Liquid	Mass density, kg/m3 - Liquid
100.00	283.15	673.34
100.00	288.15	668.91
100.00	293.15	664.28
100.00	298.15	659.73
100.00	303.15	655.07
100.00	308.15	650.44
100.00	313.15	645.7
100.00	318.15	640.93
100.00	323.15	636.14
100.00	328.15	631.22
2000.00	283.15	675.33
2000.00	288.15	670.93
2000.00	293.15	666.4
2000.00	298.15	661.91
2000.00	303.15	657.33
2000.00	308.15	652.85
2000.00	313.15	648.1
2000.00	318.15	643.46
2000.00	323.15	638.83
2000.00	328.15	634.03
5000.00	283.15	678.2
5000.00	288.15	673.95
5000.00	293.15	669.49
5000.00	298.15	665.13

5000.00	303.15	660.71
5000.00	308.15	656.28
5000.00	313.15	651.77
5000.00	318.15	647.27
5000.00	323.15	642.73
5000.00	328.15	638.2
7000.00	283.15	680.08
7000.00	288.15	675.9
7000.00	293.15	671.54
7000.00	298.15	667.22
7000.00	303.15	662.86
7000.00	308.15	658.61
7000.00	313.15	654.13
7000.00	318.15	649.71
7000.00	323.15	645.26
7000.00	328.15	640.84
10000.00	283.15	682.8
10000.00	288.15	678.66
10000.00	293.15	674.41
10000.00	298.15	670.25
10000.00	303.15	666.0
10000.00	308.15	661.77
10000.00	313.15	657.53
10000.00	318.15	653.27
10000.00	323.15	648.88
10000.00	328.15	644.64
20000.00	283.15	691.21
20000.00	288.15	687.28
20000.00	293.15	683.39
20000.00	298.15	679.53
20000.00	303.15	675.49
20000.00	308.15	671.68
20000.00	313.15	667.66
20000.00	318.15	663.74
20000.00	323.15	659.72
20000.00	328.15	655.85
30000.00	283.15	698.81
30000.00	288.15	695.19
30000.00	293.15	691.45
30000.00	298.15	687.73
30000.00	303.15	683.96
30000.00	308.15	680.42
30000.00	313.15	676.56
30000.00	318.15	672.89

30000.00	323.15	669.28
30000.00	328.15	665.6
40000.00	283.15	705.94
40000.00	288.15	702.32
40000.00	293.15	698.72
40000.00	298.15	695.4
40000.00	303.15	691.63
40000.00	308.15	688.33
40000.00	313.15	684.59
40000.00	318.15	681.17
40000.00	323.15	677.73
40000.00	328.15	674.39
50000.00	283.15	712.39
50000.00	288.15	708.77
50000.00	293.15	705.44
50000.00	298.15	702.25
50000.00	303.15	698.64
50000.00	308.15	695.51
50000.00	313.15	692.01
50000.00	318.15	688.56
50000.00	323.15	685.39
50000.00	328.15	682.22
60000.00	283.15	718.5
60000.00	288.15	715.04
60000.00	293.15	711.72
60000.00	298.15	708.63
60000.00	303.15	705.24
60000.00	308.15	702.1
60000.00	313.15	698.74
60000.00	318.15	695.68
60000.00	323.15	692.42
60000.00	328.15	689.42
65000.00	283.15	721.33
65000.00	288.15	718.14
65000.00	293.15	714.81
65000.00	298.15	711.62
65000.00	303.15	708.41
65000.00	308.15	705.28
65000.00	313.15	702.04
65000.00	318.15	699.05
65000.00	323.15	695.87
65000.00	328.15	692.79

Reference

<https://www.doi.org/10.1016/j.fluid.2012.11.013>

Temperature, K	Pressure, kPa	Mass density, kg/m3
298.15	100.00	659.76
Reference		https://www.doi.org/10.1016/j.jct.2017.07.026

Temperature, K	Pressure, kPa	Mass density, kg/m3
283.15	96.00	673.7
283.15	4984.00	678.4
283.15	9983.00	682.9
283.15	14976.00	687.2
283.15	20022.00	691.2
283.15	25054.00	695.0
283.15	29951.00	698.6
283.15	35044.00	702.1
283.15	40019.00	705.4
283.15	45032.00	708.6
283.15	50012.00	711.7
283.15	54940.00	714.6
283.15	59937.00	717.5
283.15	64969.00	720.3
288.15	123.00	669.3
288.15	4981.00	674.1
288.15	10014.00	678.9
288.15	14991.00	683.2
288.15	19942.00	687.3
288.15	25033.00	691.3
288.15	29989.00	695.0
288.15	35037.00	698.6
288.15	39987.00	701.9
288.15	45029.00	705.2
288.15	50061.00	708.4
288.15	54941.00	711.3
288.15	59951.00	714.3
288.15	65035.00	717.1
293.15	98.00	664.7
293.15	4913.00	669.7
293.15	9979.00	674.6
293.15	14916.00	679.1
293.15	19985.00	683.5
293.15	24964.00	687.5
293.15	30011.00	691.3

293.15	34951.00	694.9
293.15	40003.00	698.4
293.15	45015.00	701.8
293.15	49957.00	705.0
293.15	54949.00	708.1
293.15	60008.00	711.1
293.15	65001.00	714.0
298.15	123.00	660.1
298.15	4936.00	665.3
298.15	9999.00	670.4
298.15	15031.00	675.1
298.15	20036.00	679.5
298.15	25016.00	683.7
298.15	29992.00	687.6
298.15	34973.00	691.3
298.15	40043.00	694.9
298.15	45008.00	698.3
298.15	49987.00	701.6
298.15	54938.00	704.8
298.15	59982.00	707.8
298.15	65001.00	710.8
303.15	106.00	655.4
303.15	4970.00	660.9
303.15	9996.00	666.1
303.15	15043.00	671.1
303.15	20006.00	675.6
303.15	25024.00	679.9
303.15	29956.00	683.9
303.15	34990.00	687.7
303.15	39963.00	691.4
303.15	44991.00	694.9
303.15	49940.00	698.2
303.15	54932.00	701.5
303.15	59961.00	704.6
303.15	65012.00	707.7
308.15	109.00	650.6
308.15	4967.00	656.3
308.15	10001.00	661.8
308.15	14988.00	666.8
308.15	19945.00	671.5
308.15	25037.00	676.0
308.15	29968.00	680.1
308.15	35020.00	684.0
308.15	39963.00	687.8

308.15	44985.00	691.4
308.15	49992.00	694.8
308.15	54921.00	698.1
308.15	60008.00	701.4
308.15	64999.00	704.4
313.15	117.00	645.9
313.15	4981.00	651.9
313.15	9993.00	657.5
313.15	15145.00	662.9
313.15	20027.00	667.6
313.15	25088.00	672.2
313.15	30012.00	676.4
313.15	35003.00	680.4
313.15	40042.00	684.3
313.15	45054.00	688.0
313.15	49996.00	691.5
313.15	54926.00	694.8
313.15	60053.00	698.2
313.15	65063.00	701.3
318.15	107.00	641.1
318.15	4955.00	647.4
318.15	9991.00	653.3
318.15	15039.00	658.8
318.15	20021.00	663.7
318.15	25060.00	668.4
318.15	29991.00	672.8
318.15	34997.00	676.9
318.15	40044.00	680.9
318.15	44936.00	684.6
318.15	49998.00	688.3
318.15	55010.00	691.7
318.15	59996.00	695.1
318.15	65008.00	698.3
323.15	106.00	636.3
323.15	4980.00	642.9
323.15	9966.00	649.0
323.15	15009.00	654.6
323.15	20016.00	659.8
323.15	24987.00	664.6
323.15	30019.00	669.1
323.15	34996.00	673.3
323.15	40041.00	677.4
323.15	44988.00	681.2
323.15	49949.00	684.9

323.15	55004.00	688.5
323.15	59997.00	691.8
323.15	64995.00	695.1
328.15	4974.00	638.3
328.15	9983.00	644.6
328.15	14977.00	650.4
328.15	20010.00	655.8
328.15	25021.00	660.8
328.15	29956.00	665.4
328.15	34961.00	669.7
328.15	40039.00	673.9
328.15	45005.00	677.9
328.15	50036.00	681.7
328.15	54981.00	685.2
328.15	60023.00	688.7
328.15	65018.00	692.0
333.15	4969.00	633.7
333.15	9932.00	640.2
333.15	15031.00	646.3
333.15	19959.00	651.8
333.15	25022.00	657.0
333.15	29983.00	661.7
333.15	34948.00	666.1
333.15	39982.00	670.4
333.15	45015.00	674.5
333.15	49968.00	678.3
333.15	54981.00	682.0
333.15	59935.00	685.5
333.15	65077.00	689.0
338.15	5021.00	629.0
338.15	10019.00	635.9
338.15	15009.00	642.1
338.15	20030.00	647.8
338.15	25053.00	653.1
338.15	29999.00	658.0
338.15	34951.00	662.6
338.15	39974.00	667.0
338.15	45053.00	671.2
338.15	49966.00	675.1
338.15	54970.00	678.8
338.15	59984.00	682.5
338.15	65015.00	685.9
343.15	5000.00	624.2
343.15	10002.00	631.4

343.15	15025.00	637.8
343.15	20016.00	643.7
343.15	24973.00	649.1
343.15	29947.00	654.2
343.15	34977.00	658.9
343.15	39962.00	663.4
343.15	44924.00	667.6
343.15	50034.00	671.8
343.15	54984.00	675.6
343.15	59973.00	679.3
343.15	65018.00	682.9
348.15	4999.00	619.4
348.15	10005.00	626.9
348.15	15001.00	633.6
348.15	19997.00	639.7
348.15	24983.00	645.3
348.15	30044.00	650.6
348.15	34962.00	655.3
348.15	40008.00	660.0
348.15	44956.00	664.3
348.15	50006.00	668.4
348.15	54987.00	672.4
348.15	59977.00	676.1
348.15	65005.00	679.8
353.15	4969.00	614.4
353.15	9927.00	622.1
353.15	14990.00	629.2
353.15	20018.00	635.5
353.15	25032.00	641.3
353.15	29979.00	646.6
353.15	34952.00	651.6
353.15	39962.00	656.4
353.15	44947.00	660.8
353.15	49917.00	665.0
353.15	55013.00	669.1
353.15	59927.00	672.9
353.15	65026.00	676.6
358.15	4945.00	609.3
358.15	9952.00	617.5
358.15	15000.00	624.7
358.15	20004.00	631.3
358.15	25020.00	637.3
358.15	29990.00	642.7
358.15	34993.00	647.8

358.15	40000.00	652.7
358.15	44971.00	657.2
358.15	49932.00	661.5
358.15	54965.00	665.6
358.15	59980.00	669.6
358.15	65056.00	673.4
363.15	5004.00	604.2
363.15	9965.00	612.8
363.15	15052.00	620.5
363.15	19925.00	627.1
363.15	25013.00	633.3
363.15	29929.00	638.9
363.15	35008.00	644.2
363.15	39979.00	649.1
363.15	45062.00	653.9
363.15	50011.00	658.2
363.15	54995.00	662.4
363.15	60039.00	666.4
363.15	65041.00	670.2

Reference

<https://www.doi.org/10.1021/acs.jced.9b00846>

Viscosity, Pa*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
273.14	1000.00	0.0003840
273.14	5000.00	0.0003979
273.14	10000.00	0.0004162
273.13	15000.00	0.0004369
273.14	20000.00	0.0004600
273.14	25000.00	0.0004785
273.14	30000.00	0.0004944
273.14	35000.00	0.0005201
273.14	40000.00	0.0005384
283.14	1000.00	0.0003459
283.14	5000.00	0.0003583
283.14	10000.00	0.0003743
283.15	15000.00	0.0003943
283.14	20000.00	0.0004131
283.14	25000.00	0.0004318
283.14	30000.00	0.0004485

283.15	35000.00	0.0004678
283.15	40000.00	0.0004873
293.17	1000.00	0.0003109
293.17	5000.00	0.0003230
293.17	10000.00	0.0003397
293.16	15000.00	0.0003562
293.16	20000.00	0.0003728
293.16	25000.00	0.0003906
293.17	30000.00	0.0004076
293.16	35000.00	0.0004237
293.16	40000.00	0.0004416
303.16	1000.00	0.0002824
303.16	5000.00	0.0002938
303.16	10000.00	0.0003092
303.16	15000.00	0.0003247
303.16	20000.00	0.0003410
303.16	25000.00	0.0003574
303.16	30000.00	0.0003723
303.15	35000.00	0.0003877
303.16	40000.00	0.0004042
313.16	1000.00	0.0002568
313.16	5000.00	0.0002679
313.17	10000.00	0.0002819
313.14	15000.00	0.0002973
313.16	20000.00	0.0003116
313.15	25000.00	0.0003261
313.16	30000.00	0.0003413
313.16	35000.00	0.0003557
313.16	40000.00	0.0003704
323.16	1000.00	0.0002351
323.17	5000.00	0.0002451
323.17	10000.00	0.0002593
323.17	15000.00	0.0002744
323.17	20000.00	0.0002871
323.17	25000.00	0.0003000
323.17	30000.00	0.0003143
323.17	35000.00	0.0003283
323.17	40000.00	0.0003409
333.15	1000.00	0.0002149
333.16	5000.00	0.0002251
333.16	10000.00	0.0002367
333.16	15000.00	0.0002509
333.16	20000.00	0.0002637
333.16	25000.00	0.0002789

333.16	30000.00	0.0002901
333.16	35000.00	0.0003031
333.17	40000.00	0.0003155
343.15	1000.00	0.0001980
343.15	5000.00	0.0002075
343.16	10000.00	0.0002195
343.16	15000.00	0.0002324
343.16	20000.00	0.0002468
343.16	25000.00	0.0002587
343.15	30000.00	0.0002713
343.16	35000.00	0.0002826
343.15	40000.00	0.0002939

Reference

<https://www.doi.org/10.1021/acs.jced.6b01024>

Sources

Liquid-Liquid Coexistence Curves for Binary Systems: Methanol + Cyclohexane and + Several Isomers of Hexane:

Separation of binary mixtures

hexane/hex-1-ene,

Activity coefficients at infinite dilution

and thermodynamic properties for a

family of organic solutes dissolved in three

phases: a study of binary mixtures of

hexane with some branched alkanes

and the binary systems of alkyl side

compounds in N-vinylpyrrolidone and

ternary ammonium-based ionic

hydrocarbon-water systems

Confined phase equilibria of branched

alkanes using limiting partial molar

volumes of temperature on the (liquid

+ liquid) equilibria of (3-methyl pentane

Activity coefficients at infinite dilution

for organic solutes and water, and

ternary systems of organic solutes:

Diffusivity of Sixteen Isomers of

Separation of binary mixtures:

hexane/hex-1-ene,

KDRC Korea Research Thermophysical

Properties Database: based on limiting

activity coefficients of Vapor

Pressure:

Experimental and Predicted Kinematic

Viscosities for Alkane + Chloroalkane

Ammonium ionic liquids in extraction

of bio-butan-1-ol from water phase

Limiting activity coefficients at infinite

mixtures: Diisopropyl Ether +

3-methyl pentane, octane, and decane

and physicochemical properties for

organic solutes and selectivity of ionic

separation based on activity

coefficients of activity coefficients

at infinite dilution for organic solutes

in water: ammonium-based ionic

liquids using inverse Gas

Chromatography:

<https://www.doi.org/10.1021/je0505321>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C96140&Units=SI>

<https://www.doi.org/10.1016/j.jct.2017.11.017>

<https://www.doi.org/10.1016/j.jct.2012.05.017>

<https://www.doi.org/10.1021/je4001894>

<https://www.doi.org/10.1016/j.jct.2003.09.004>

<https://www.doi.org/10.1021/je9003178>

<https://www.doi.org/10.1021/je700449z>

<https://www.doi.org/10.1016/j.jct.2017.07.026>

<https://www.doi.org/10.1016/j.jct.2009.05.016>

<https://www.doi.org/10.1016/j.jct.2015.05.014>

<https://www.doi.org/10.1021/je020125e>

<https://www.doi.org/10.1016/j.jct.2017.03.004>

<https://www.thermo.com/research/kdb/hcprop/showprop.php?cmpid=36>

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

<https://www.doi.org/10.1021/je200213h>

<https://www.doi.org/10.1016/j.fluid.2018.09.024>

<https://www.doi.org/10.1021/je030161t>

<https://www.doi.org/10.1016/j.jct.2011.11.021>

<https://www.doi.org/10.1016/j.jct.2016.06.028>

<https://www.doi.org/10.1016/j.jct.2013.02.004>

<https://www.doi.org/10.1021/je200637v>

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[illegible]

Physicochemical properties and activity coefficients at infinite dilution of organic solutes in water separation of binary hydrocarbon mixtures based on limiting activity coefficients data using the study of activity coefficients at infinite dilution for various solutes and water by using 1-methylimidazolium dicyanamide. A literature review of isothermal vapour liquid equilibrium data for binary systems of (CHF₃ or C₂F₆) with various organic solutes and water in the ionic liquid 1-(2-hydroxyethyl)-3-methylimidazolium trifluoromethanesulfonylphosphate:

<https://www.doi.org/10.1016/j.jct.2012.09.033>
<https://www.doi.org/10.1016/j.jct.2018.07.024>
<https://www.doi.org/10.1016/j.fluid.2017.12.029>
<https://www.doi.org/10.1016/j.jct.2013.09.007>
<https://www.doi.org/10.1016/j.fluid.2016.02.004>
<http://link.springer.com/article/10.1007/BF02311772>
<https://www.doi.org/10.1016/j.jct.2017.12.002>
<https://www.doi.org/10.1016/j.jct.2013.05.008>

Legend

af:	Acentric Factor
ap:	Aniline Point
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
cps:	Solid phase heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hcg:	Heat of Combustion, Gross form
hcn:	Heat of Combustion, Net Form
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
kvisc:	Kinematic viscosity
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
pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhoc:	Critical density
rho:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices

sg:	Molar entropy at standard conditions
sl:	Liquid phase molar entropy at standard conditions
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tcondl:	Liquid thermal conductivity
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
vc:	Critical Volume
zc:	Critical Compressibility
zra:	Rackett Parameter

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