Pyridine

Other names:	Azabenzene
	Azine
	CP 32
	NCI-C55301
	NSC 406123
	Piridina
	Pirydyna
	Pyr
	Pyridin
	Rcra waste number U196
	UN 1282
Inchi:	InChI=1S/C5H5N/c1-2-4-6-5-3-1/h1-5H
InchiKey:	JUJWROOIHBZHMG-UHFFFAOYSA-N
Formula:	C5H5N
SMILES:	c1ccncc1
Mol. weight [g/mol]:	79.10
CAS:	110-86-1

Physical Properties

Property code	Value	Unit	Source
af	0.2430		KDB
affp	930.00	kJ/mol	NIST Webbook
affp	936.50 ± 8.50	kJ/mol	NIST Webbook
aigt	755.37	K	KDB
basg	898.10	kJ/mol	NIST Webbook
chl	-2782.40 ± 1.50	kJ/mol	NIST Webbook
chl	-2758.00	kJ/mol	NIST Webbook
chl	-2782.20 ± 0.42	kJ/mol	NIST Webbook
chl	-2725.00	kJ/mol	NIST Webbook
dm	2.30	debye	KDB
ep	-1.00 ± 10.00	J/mol×K	NIST Webbook
fll	1.80	% in Air	KDB
flu	12.40	% in Air	KDB
fpo	293.15	K	KDB
gf	190.30	kJ/mol	KDB
gyrad	3.0500		KDB
hf	140.30	kJ/mol	KDB

hf	140.20	kJ/mol	NIST Webbook
hf	140.60 ± 1.50	kJ/mol	NIST Webbook
hf	140.70 ± 1.50	kJ/mol	NIST Webbook
hf	110.10	kJ/mol	NIST Webbook
hfl	69.90	kJ/mol	NIST Webbook
hfl	100.20 ± 1.50	kJ/mol	NIST Webbook
hfl	99.96 ± 0.50	kJ/mol	NIST Webbook
ie	9.26	eV	NIST Webbook
ie	9.25	eV	NIST Webbook
ie	9.40	eV	NIST Webbook
ie	9.27	eV	NIST Webbook
ie	9.23 ± 0.03	eV	NIST Webbook
ie	9.80 ± 0.20	eV	NIST Webbook
ie	9.51	eV	NIST Webbook
ie	9.20 ± 0.05	eV	NIST Webbook
ie	9.70	eV	NIST Webbook
ie	9.60 ± 0.50	eV	NIST Webbook
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ie	9.34 ± 0.03	eV	NIST Webbook
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ie	9.66 ± 0.03	eV	NIST Webbook
ie	9.26	eV	NIST Webbook
ie	9.90 ± 0.10	eV	NIST Webbook
ie	9.50	eV	NIST Webbook
ie	9.74 ± 0.05	eV	NIST Webbook
ie	9.25	eV	NIST Webbook
ie	9.70	eV	NIST Webbook
ie	9.28	eV	NIST Webbook
ie	9.26 ± 0.01	eV	NIST Webbook
log10ws	0.76		Estimated Solubility Method
log10ws	0.76		Aqueous Solubility Prediction Method
logp	1.082		Crippen Method
mcvol	67.530	ml/mol	McGowan Method
nfpaf	%!d(float64=3)		KDB
nfpah	%!d(float64=2)		KDB
pc	5670.00	kPa	KDB
pc	6079.50 ± 81.06	kPa	NIST Webbook

pc	5640.00 ± 103.40	kPa	NIST Webbook
pc	5660.00 ± 5.65	kPa	NIST Webbook
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ripol	1195.00		NIST Webbook
ripol	1193.00		NIST Webbook
ripol	1170.00		NIST Webbook
sl	210.41	J/mol×K	NIST Webbook
sl	179.10	J/mol×K	NIST Webbook
sl	177.90	J/mol×K	NIST Webbook
tb	389.20 ± 0.30	K	NIST Webbook
tb	388.66 ± 0.40	K	NIST Webbook
tb	388.35 ± 0.25	K	NIST Webbook
tb	388.45 ± 0.30	K	NIST Webbook
tb	388.30 ± 0.30	K	NIST Webbook
tb	388.50 ± 0.20	K	NIST Webbook
tb	388.15 ± 1.00	K	NIST Webbook
tb	389.00 ± 0.50	K	NIST Webbook
tb	388.65 ± 0.35	K	NIST Webbook
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tb	390.65 ± 0.70	K	NIST Webbook
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tb	387.65 ± 1.50	K	NIST Webbook
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tb	388.65 ± 0.30	K	NIST Webbook

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tb	388.15 ± 1.00	K	NIST Webbook
tb	388.70	K	NIST Webbook
tb	388.55 ± 0.50	K	NIST Webbook
tb	387.90	K	Effect of Cadmium Chloride and Ammonium Chloride Salts on the Enthalpy of Mixing of the Pyridine + Water at 303.15 K
tb	389.00	K	Effect of Dissolved Inorganic Salts on the Enthalpy of Mixing of the Ethanol + Pyridine System at 303.15 K
tb	388.38	K	KDB
tb	389.60 ± 1.00	K	NIST Webbook
tb	387.65 ± 1.50	K	NIST Webbook
tb	388.45 ± 0.50	K	NIST Webbook
tb	389.15 ± 0.50	K	NIST Webbook
tc	620.20 ± 0.61	K	NIST Webbook
tc	620.00	K	NIST Webbook
tc	619.95 ± 0.20	K	NIST Webbook
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tc	618.00 ± 0.35	K	NIST Webbook
tc	617.75 ± 0.35	K	NIST Webbook
tc	618.15 ± 0.40	K	NIST Webbook
tc	620.15 ± 6.00	K	NIST Webbook
tc	620.00	K	KDB
tf	231.49	K	KDB
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tt	231.48 ± 0.03	K	NIST Webbook
tt	231.48 ± 0.05	K	NIST Webbook
vc	0.253 ± 0.005	m3/kmol	NIST Webbook
vc	0.243	m3/kmol	KDB
zc	0.2672770		KDB
zra	0.27		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	134.93	J/mol×K	298.10	NIST Webbook
cpl	133.82	J/mol×K	308.15	Excess heat capacities of (binary + ternary) mixtures containing [emim][BF4] and organic liquids
cpl	132.71	J/mol×K	303.15	Excess heat capacities of (binary + ternary) mixtures containing [emim][BF4] and organic liquids
cpl	130.49	J/mol×K	293.15	Excess heat capacities of (binary + ternary) mixtures containing [emim][BF4] and organic liquids
cpl	130.49	J/mol×K	293.15	Excess heat capacities of 1-methyl pyrrolidin-2-one and pyridine orpicolines mixtures
cpl	131.74	J/mol×K	298.15	Excess heat capacities of 1-methyl pyrrolidin-2-one and pyridine orpicolines mixtures
cpl	132.71	J/mol×K	303.15	Excess heat capacities of 1-methyl pyrrolidin-2-one and pyridine orpicolines mixtures
cpl	193.40	J/mol×K	293.00	NIST Webbook
cpl	146.90	J/mol×K	332.00	NIST Webbook
cpl	132.72	J/mol×K	298.15	NIST Webbook
cpl	131.74	J/mol×K	298.15	Excess heat capacities of (binary + ternary) mixtures containing [emim][BF4] and organic liquids

cpl	133.30	J/mol×K	298.10	NIST Webbook
cpl	129.30	J/mol×K	289.00	NIST Webbook
cpl	135.35	J/mol×K	273.40	NIST Webbook
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cpl	135.60	J/mol×K	290.00	NIST Webbook
cpl	130.50	J/mol×K	283.00	NIST Webbook
hfust	8.28	kJ/mol	231.49	NIST Webbook
hfust	3.10	kJ/mol	230.38	NIST Webbook
hfust	8.27	kJ/mol	231.10	NIST Webbook
hfust	8.28	kJ/mol	231.50	NIST Webbook
hfust	8.28	kJ/mol	231.50	NIST Webbook
hvapt	35.10 ± 0.10	kJ/mol	388.00	NIST Webbook
hvapt	38.40	kJ/mol	354.00	NIST Webbook
hvapt	37.50 ± 0.10	kJ/mol	346.00	NIST Webbook
hvapt	36.40 ± 0.10	kJ/mol	366.00	NIST Webbook
hvapt	36.30	kJ/mol	368.00	NIST Webbook
hvapt	37.70	kJ/mol	343.00	NIST Webbook
hvapt	38.50	kJ/mol	328.00	NIST Webbook
hvapt	39.40	kJ/mol	313.00	NIST Webbook
hvapt	39.60	kJ/mol	315.50	NIST Webbook
hvapt	37.60	kJ/mol	383.00	NIST Webbook
hvapt	34.00	kJ/mol	586.00	NIST Webbook
hvapt	35.00	kJ/mol	494.50	NIST Webbook
hvapt	37.30	kJ/mol	391.00	NIST Webbook
hvapt	39.90	kJ/mol	341.50	NIST Webbook
hvapt	37.60	kJ/mol	354.00	NIST Webbook
hvapt	35.15	kJ/mol	388.40	KDB
hvapt	39.30	kJ/mol	323.50	NIST Webbook
hvapt	35.09	kJ/mol	388.40	NIST Webbook
hvapt	39.70	kJ/mol	324.50	NIST Webbook
hvapt	44.40	kJ/mol	323.50	NIST Webbook
pvap	5.86	kPa	313.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid
pvap	2.25	kPa	293.15	Experimental Measurement and Modeling of Phase Diagrams of Binary Systems Encountered in the Gasoline Desulfurization Process Using Ionic Liquids

pvap	3.45	kPa	303.15	Experimental Measurement and Modeling of Phase Diagrams of Binary Systems Encountered in the Gasoline Desulfurization Process Using Ionic Liquids	
pvap	1.72	kPa	288.15	Experimental Measurement and Modeling of Phase Diagrams of Binary Systems Encountered in the Gasoline Desulfurization Process Using Ionic Liquids	
pvap	2.83	kPa	298.15	Experimental Measurement and Modeling of Phase Diagrams of Binary Systems Encountered in the Gasoline Desulfurization Process Using Ionic Liquids	
pvap	2.20	kPa	293.15	Experimental Measurement and Modeling of Phase Diagrams of Binary Systems Encountered in the Gasoline Desulfurization Process Using Ionic Liquids	
pvap	1.65	kPa	288.15	Experimental Measurement and Modeling of Phase Diagrams of Binary Systems Encountered in the Gasoline Desulfurization Process Using Ionic Liquids	
pvap	46.13	kPa	363.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	

pvap	32.17	kPa	353.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	
pvap	14.55	kPa	333.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	
pvap	9.38	kPa	323.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	
pvap	0.60	kPa	273.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	
pvap	1.14	kPa	283.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	
pvap	2.05	kPa	293.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	
pvap	3.54	kPa	303.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	
pvap	2.85	kPa	298.15	Experimental Measurement and Modeling of Phase Diagrams of Binary Systems Encountered in the Gasoline Desulfurization Process Using Ionic Liquids	

pvap	21.92	kPa	343.15	Measurement and correlation of vapour pressures of pyridine and thiophene with [EMIM][SCN] ionic liquid	
rfi	1.49493		318.15	Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination	
rfi	1.49769		313.15	Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination	
rfi	1.50048		308.15	Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination	

rfi	1.49219		323.15	Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination
rfi	1.50616		298.15	Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination
rfi	1.50900		293.15	Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination

rfi	1.51184	288.15	Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination
rfi	1.50250	303.15	Density, Viscosity, Refractive Index, and Speed of Sound in the Binary Mixtures of Tri-n-butylamine + Triethylamine, + Tetrahydrofuran, + Tetradecane, + Tetrachloroethylene, + Pyridine, or + Trichloroethylene at (298.15, 303.15, and 308.15) K
rfi	1.50160	308.15	Density, Viscosity, Refractive Index, and Speed of Sound in the Binary Mixtures of Tri-n-butylamine + Triethylamine, + Tetrahydrofuran, + Tetradecane, + Tetrachloroethylene, + Pyridine, or + Trichloroethylene at (298.15, 303.15, and 308.15) K
rfi	1.50699	298.15	Extraction Ability of Nitrogen-Containing Compounds Involved in the Desulfurization of Fuels by Using Ionic Liquids

rfi	1.50331		303.15	Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination
rfi	1.50950		293.15	Solubilities of Phosphorus-Containing Compounds in Selected Solvents
rfi	1.50620		298.15	Density, Viscosity, Refractive Index, and Speed of Sound in the Binary Mixtures of Tri-n-butylamine + Triethylamine, + Tetrahydrofuran, + Tetradecane, + Tetrachloroethylene, + Pyridine, or + Trichloroethylene at (298.15, 303.15, and 308.15) K
rhol	956.30	kg/m3	317.55	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	967.91	kg/m3	308.15	Phase equilibria and excess molar enthalpies study of the binary systems (pyrrole + hydrocarbon, or an alcohol) and modeling
rhol	957.76	kg/m3	318.15	Phase equilibria and excess molar enthalpies study of the binary systems (pyrrole + hydrocarbon, or an alcohol) and modeling

rhol	978.01	kg/m3	298.15	Phase equilibria and excess molar enthalpies study of the binary systems (pyrrole + hydrocarbon, or an alcohol) and modeling
rhol	937.30	kg/m3	338.15	Phase equilibria and excess molar enthalpies study of the binary systems (pyrrole + hydrocarbon, or an alcohol) and modeling
rhol	982.85	kg/m3	298.15	Separation of pyridine from heptane with tricyanomethanide-based ionic liquids
rhol	982.85	kg/m3	298.15	Phase diagrams of binary systems containing tricyanomethanide-based ionic liquids and thiophene or pyridine - new experimental data and PC-SAFT modeling
rhol	978.25	kg/m3	298.15	Thermodynamic studies of molecular interactions in mixtures of o-toulidine with pyridine and picolines: Excess molar volumes, excess molar enthalpies, and excess isentropic compressibilities
rhol	978.25	kg/m3	298.15	Excess molar enthalpies for [emim][BF4] + pyrrolidin-2-one or 1-methyl pyrrolidin-2-one + pyridine or water mixtures
rhol	973.09	kg/m3	303.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride

rhol	968.06	kg/m3	308.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride
rhol	963.02	kg/m3	313.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride
rhol	957.97	kg/m3	318.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride
rhol	952.90	kg/m3	323.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride
rhol	947.82	kg/m3	328.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride
rhol	942.72	kg/m3	333.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride
rhol	937.60	kg/m3	338.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride
rhol	932.46	kg/m3	343.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride
rhol	927.30	kg/m3	348.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride

rhol	922.12	kg/m3	353.15	Effect of organic solvents on lowering the viscosity of 1-hexyl-3-methylimidazolium chloride	
rhol	973.09	kg/m3	303.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid	
rhol	968.06	kg/m3	308.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid	
rhol	963.02	kg/m3	313.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid	
rhol	957.97	kg/m3	318.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid	
rhol	952.90	kg/m3	323.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid	
rhol	947.82	kg/m3	328.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid	
rhol	942.72	kg/m3	333.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid	

rhol	937.60	kg/m3	338.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid
rhol	932.46	kg/m3	343.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid
rhol	927.30	kg/m3	348.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid
rhol	922.12	kg/m3	353.15	Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquid
rhol	983.20	kg/m3	293.15	Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquids and Organic Solvents
rhol	978.25	kg/m3	298.15	Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquids and Organic Solvents
rhol	973.23	kg/m3	303.15	Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquids and Organic Solvents
rhol	968.17	kg/m3	308.15	Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquids and Organic Solvents

rhol	988.04	kg/m3	288.15	Excess Enthalpy and Excess Volume for Pyridine + Methyldiethanolamine and Pyridine + Ethanolamine Mixtures
rhol	978.14	kg/m3	298.15	Excess Enthalpy and Excess Volume for Pyridine + Methyldiethanolamine and Pyridine + Ethanolamine Mixtures
rhol	921.95	kg/m3	353.15	Excess Enthalpy and Excess Volume for Pyridine + Methyldiethanolamine and Pyridine + Ethanolamine Mixtures
rhol	988.34	kg/m3	288.15	Excess Enthalpy and Excess Volume for Pyridine + Methyldiethanolamine and Pyridine + Ethanolamine Mixtures
rhol	978.09	kg/m3	298.15	Excess Enthalpy and Excess Volume for Pyridine + Methyldiethanolamine and Pyridine + Ethanolamine Mixtures
rhol	921.95	kg/m3	353.15	Excess Enthalpy and Excess Volume for Pyridine + Methyldiethanolamine and Pyridine + Ethanolamine Mixtures
rhol	978.04	kg/m3	298.15	Desulfurization of fuels by liquid-liquid extraction with1-ethyl-3-methylimidazolium ionic liquids

rhol	978.25	kg/m3	298.15	Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquid and Organic Liquids: Excess Molar Volume and Excess Isentropic Compressibility
rhol	973.22	kg/m3	303.15	Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquid and Organic Liquids: Excess Molar Volume and Excess Isentropic Compressibility
rhol	968.17	kg/m3	308.15	Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquid and Organic Liquids: Excess Molar Volume and Excess Isentropic Compressibility
rhol	978.13	kg/m3	298.15	Liquid-Liquid Equilibria for Binary System of Ethanol + Hexadecane at Elevated Temperature and the Ternary Systems of Ethanol + Heterocyclic Nitrogen Compounds + Hexadecane at 298.15 K
rhol	978.24	kg/m3	298.15	Hexyl dimethylpyridinium ionic liquids for desulfurization of fuels. Effect of the position of the alkyl side chains

rhol	978.25	kg/m3	298.15	(Liquid + Liquid) Equilibrium for (N,N-Dimethylformamide (DMF) + Hexadecane) at Temperatures between (293.15 and 313.15) K and Ternary Mixtures of (DMF + Hexadecane) with Either Quinoline, or Pyridine, or Pyrrole, or Aniline, or Indole at T = 298.15 K
rhol	953.10	kg/m3	321.15	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	953.90	kg/m3	319.55	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	959.80	kg/m3	315.35	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	961.60	kg/m3	313.15	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	963.60	kg/m3	311.35	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	965.20	kg/m3	309.25	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	967.90	kg/m3	307.25	Thermodynamic properties of aqueous solutions of pyridine and piperidine

rhol	969.90	kg/m3	305.15	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	971.70	kg/m3	303.25	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	972.80	kg/m3	301.25	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	975.30	kg/m3	299.15	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	977.90	kg/m3	297.25	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	979.20	kg/m3	295.35	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	981.00	kg/m3	293.95	Thermodynamic properties of aqueous solutions of pyridine and piperidine
rhol	983.00	kg/m3	293.00	KDB
rhol	978.25	kg/m3	298.15	Binary Liquid-Liquid Equilibrium (LLE) for N-Methylformamide (NMF) + Hexadecane between (288.15 and 318.15) K and Ternary LLE for Systems of NMF + Heterocyclic Nitrogen Compounds + Hexadecane at 298.15 K

rhol	947.56	kg/m3	328.15	Phase equilibria and excess molar enthalpies study of the binary systems (pyrrole + hydrocarbon, or an alcohol) and modeling
rhol	983.19	kg/m3	293.15	Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquid and Organic Liquids: Excess Molar Volume and Excess Isentropic Compressibility
sfust	13.46	J/mol×K	230.38	NIST Webbook
sfust	35.76	J/mol×K	231.49	NIST Webbook
sfust	35.79	J/mol×K	231.10	NIST Webbook
speedsl	1397.97	m/s	303.15	Topological investigations of binary mixtures containing ionic liquid 1-ethyl-3-methylimidazolium tetrafluoroborate and pyridine or isomeric picolines
speedsl	1377.11	m/s	308.15	Thermodynamic properties of binary mixtures of tetrahydropyran with pyridine and isomeric picolines: Excess molar volumes, excess molar enthalpies and excess isentropic compressibilities
speedsl	1436.60	m/s	293.15	Thermodynamics of Ketone + Amine Mixtures. Part III. Volumetric and Speed of Sound Data at (293.15, 298.15, and 303.15) K for 2-Butanone + Aniline, + N-Methylaniline, or + Pyridine Systems

speedsl	1416.20	m/s	298.15	Thermodynamics of Ketone + Amine Mixtures. Part III. Volumetric and Speed of Sound Data at (293.15, 298.15, and 303.15) K for 2-Butanone + Aniline, + N-Methylaniline, or + Pyridine Systems
speedsl	1396.90	m/s	303.15	Thermodynamics of Ketone + Amine Mixtures. Part III. Volumetric and Speed of Sound Data at (293.15, 298.15, and 303.15) K for 2-Butanone + Aniline, + N-Methylaniline, or + Pyridine Systems
speedsl	1442.04	m/s	293.15	Topological investigations of binary mixtures containing ionic liquid 1-ethyl-3-methylimidazolium tetrafluoroborate and pyridine or isomeric picolines
speedsl	1397.37	m/s	303.15	Thermodynamic properties of binary mixtures of tetrahydropyran with pyridine and isomeric picolines: Excess molar volumes, excess molar enthalpies and excess isentropic compressibilities

speedsl	1417.61	m/s	298.15	Thermodynamic properties of binary mixtures of tetrahydropyran with pyridine and isomeric picolines: Excess molar volumes, excess molar enthalpies and excess isentropic compressibilities
speedsl	1377.11	m/s	308.15	Topological investigations of binary mixtures containing ionic liquid 1-ethyl-3-methylimidazolium tetrafluoroborate and pyridine or isomeric picolines
speedsl	1417.81	m/s	298.15	Topological investigations of binary mixtures containing ionic liquid 1-ethyl-3-methylimidazolium tetrafluoroborate and pyridine or isomeric picolines
srf	0.04	N/m	293.20	KDB

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.45260e+01
Coeff. B	-3.36808e+03
Coeff. C	-4.85520e+01
Temperature range (K), min.	285.10
Temperature range (K), max.	414.07

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	7.55215e+01

Coeff. B	-7.22139e+03
Coeff. C	-8.90767e+00
Coeff. D	5.30428e-06
Temperature range (K), min.	231.51
Temperature range (K), max.	619.95

Datasets

Mass density, kg/m3

Temperature, K - Liquid	Pressure, kPa - Liquid	Mass density, kg/m3 - Liquid
298.15	100.00	978.25

Reference *https://www.doi.org/10.1016/j.jct.2013.02.020*

Sources

Separation of water/butan-1-ol based on activity coefficients at infinite dilution in 1,3-didecyl-2-methylimidazolium dicyanamide ionic liquid:	https://www.doi.org/10.1016/j.jct.2017.10.003
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Desulfurization of fuel oils with [C2mim][NTf2]: A comparative study:	https://www.doi.org/10.1016/j.jct.2012.08.031
Separation of binary mixtures based on limiting activity coefficients data using specific ammonium-based ionic liquid and modelling of thermodynamic functions:	https://www.doi.org/10.1016/j.fluid.2017.12.029
Phase equilibria and excess molar enthalpies study of the binary systems (pyrrole + hydrocarbon, or an alcohol) and modeling:	https://www.doi.org/10.1016/j.fluid.2013.10.029
Activity coefficients at infinite dilution for organic solutes and water in 1-ethyl-1-methylpyrrolidinium lactate:	https://www.doi.org/10.1016/j.jct.2015.05.014
Experimental determination and modeling of excess molar volumes, viscosities and refractive indices of the binary systems (pyridine + 1-propanol, + 1,2-propanediol, + 1,3-propanediol, and + glycerol). New UNIFAC-VISCO parameters determination:	https://www.doi.org/10.1016/j.jct.2012.06.031
Phase diagrams of binary systems containing tricyanomethanide-based ionic liquids and thiophene or pyridine - new experimental data and PC-SAFT modelling:	https://www.doi.org/10.1016/j.fluid.2015.04.031
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Experimental Measurements and Modeling Study of Liquid-Liquid Equilibrium [(Water + Methyl Oleate + Model Molecules of Tar Issued from the Biomass Gasification Process (Benzene, Toluene, Phenol, Thiophene, and Pyridine)]:	https://www.doi.org/10.1021/acs.jced.8b00659
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Activity Coefficients at Infinite Dilution for Organic Solutes Dissolved in Three 1-Alkyl-1-methylpyrrolidinium Bis(trifluoromethylsulfonyl)imide Ionic Liquids Bearing Short Linear Alkyl Side Chains of Three to Five Carbons:	https://www.doi.org/10.1021/je4001894
Activity coefficients at infinite dilution of organic solutes in methylphosphonate based ionic liquids using gas-liquid chromatography:	https://www.doi.org/10.1016/j.jct.2015.02.023
Thermodynamics and activity coefficient at infinite dilution for organic solutes and water in the ionic liquid 1-butyl-1-methylmorpholinium tricyanomethanide:	https://www.doi.org/10.1016/j.jct.2013.08.030
Abraham model linear free energy relationships for describing the partitioning and solubility behavior of nonelectrolyte organic solutes dissolved in pyridine at 298.15 K:	https://www.doi.org/10.1016/j.fluid.2016.10.009
Thermodynamic studies of molecular interactions in mixtures of o-toulidine with pyridine and picolines: Excess molar volumes, excess molar enthalpies, and excess isentropic compressibilities:	https://www.doi.org/10.1016/j.jct.2010.12.028
Influence of Aprotic Cosolvents on the Thermophysical Properties of Imidazolium-Based Ionic Liquids:	https://www.doi.org/10.1021/acs.jced.7b00002
Temperature dependences of limiting activity coefficients and Henry's law constants for N-methylpyrrolidone, pyridine, and piperidine in water:	https://www.doi.org/10.1016/j.fluid.2009.05.005
Topological investigations of binary mixtures containing ionic liquid 1-ethyl-3-methylimidazolium tetrafluoroborate and pyridine or isomeric picolines:	https://www.doi.org/10.1016/j.jct.2012.07.007

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Binary Liquid-Liquid Equilibrium (LLE) for N-Methylformamide (NMF) + Hexadecane between (288.15 and 318.15) K and Ternary LLE for Systems of NMF + Heterocyclic Nitrogen Compounds + Hexadecane at 298.15 K:	https://www.doi.org/10.1021/je8006265
Densities, viscosities and refractive indices of binary mixtures containing [illegible] theory: New UNIFAC-VISCO [illegible] parameter determination:	https://www.doi.org/10.1016/j.fluid.2016.02.031
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Activity coefficients at infinite dilution and physicochemical properties for organic solutes and water in the ionic liquid 1-(2-hydroxyethyl)-3-methylimidazolium [illegible]:	https://www.doi.org/10.1016/j.jct.2013.05.008
Excess molar enthalpies of ternary mixtures containing [illegible]-3-methylimidazolium tetrafluoroborate and organic solvents:	https://www.doi.org/10.1016/j.tca.2013.07.006
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Activity coefficients at infinite dilution of organic solvents and water in 1-butyl-3-methylimidazolium dicyanamide. A literature review of hexane/hex-1-ene separation:	https://www.doi.org/10.1016/j.fluid.2016.02.004
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Activity Coefficients at Infinite Dilution of Organic Compounds in [illegible]imidazolium Tetrafluoroborate Using Inverse Gas Chromatography:	https://www.doi.org/10.1021/je800658v
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Activity Coefficients at Infinite Dilution for Organic Compounds Dissolved in 1-Alkyl-1-methylpyrrolidinium Bis(trifluoromethylsulfonyl)imide Ionic Liquids Having Six-, Eight-, and Ten-Carbon Alkyl Chains:	https://www.doi.org/10.1021/je300692s
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Thermodynamic Properties of Ternary Mixtures Containing Ionic Liquid and 1-(2-Methoxyethyl)-1-methylmorpholinium Bis(trifluoromethylsulfonyl)imide	https://www.doi.org/10.1021/je4004965
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Diethylamine, + Tetrahydrofuran, + Tetradecane, + Tetrachloroethylene, + Pyridine, or + Trichloroethylene at (298.15, 303.15, and 308.15) K:	
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Deep desulfurization process using ionic liquids:	

Legend

af:	Acentric Factor
affp:	Proton affinity
aigt:	Autoignition Temperature
basg:	Gas basicity
chl:	Standard liquid enthalpy of combustion
cpl:	Liquid phase heat capacity
dm:	Dipole Moment
ep:	Protonation entropy at 298K
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
hfl:	Liquid phase enthalpy of formation at standard conditions
hfust:	Enthalpy of fusion at a given temperature
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
pc:	Critical Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhol:	Liquid Density
rinpol:	Non-polar retention indices

ripol:	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
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