rubidium chloride

Other names:	rubidium chloride (RbCl)
	rubidium monochloride
Inchi:	InChI=1S/ClH.Rb/h1H;/q;+1/p-1
InchiKey:	FGDZQCVHDSGLHJ-UHFFFAOYSA-M
Formula:	ClRb
SMILES:	[Cl-].[Rb+]
Mol. weight [g/mol]:	120.92
CAS:	7791-11-9

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
rhos	2578.40	kg/m3	903.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point
rhos	2573.50	kg/m3	913.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point
rhos	2567.80	kg/m3	923.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point
rhos	2562.20	kg/m3	933.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point
rhos	2556.10	kg/m3	943.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point
rhos	2551.70	kg/m3	953.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point

rhos	2548.60	kg/m3	963.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point
rhos	2547.60	kg/m3	973.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point
rhos	2550.30	kg/m3	983.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point
rhos	2556.40	kg/m3	993.00	Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.42352e+01
Coeff. B	-1.40827e+04
Coeff. C	-1.98770e+02
Temperature range (K), min.	1065.15
Temperature range (K), max.	1663.15

Sources

Density of Crystalline Alkali Chlorides and Their Eutectic Mixtures Near the Melting Point.	https://www.doi.org/10.1021/je901030f
Density of Methanolic Alkali Halide Salt Solutions by Experiment and Molecular Simulation.	https://www.doi.org/10.1021/je5009944
Stable (solid + liquid) phase equilibrium for the ternary system (NaCl + RbCl + H2O) at T = (288.15, 298.15, and 308.15) K.	https://www.doi.org/10.1016/j.jct.2016.12.007
Comparative Densities and Refractive Indices for the Ternary Systems Ethylene Glycol + NaCl + H2O, Ethylene Glycol + KCl + H2O, Ethylene Glycol + RbCl + H2O, and Ethylene Glycol + CsCl + H2O at Various Temperatures from (278.15 to 393.15) K at the Pressure 0.35 MPa	https://www.doi.org/10.1021/je900630n
Apparent molar volumes and heat capacities of aqueous lithium chloride, sodium chloride, potassium chloride, rubidium chloride, and cesium chloride at 298.15 K	https://www.doi.org/10.1016/j.jct.2004.01.004
The Yaws Handbook of Vapor Pressure	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Solubility of RbCl and CsCl in pure water at subzero temperatures, heat capacity of RbCl(aq) and CsCl(aq) at T = 298.15 K, and thermodynamic modeling of RbCl + H2O and CsCl + H2O systems:	https://www.doi.org/10.1016/j.jct.2016.09.031

Measurement and Correlation of Solubilities and Solution Thermodynamics for	https://www.doi.org/10.1021/acs.jced.5b01043
Phase diagram of the NaCl+RbCl+H2O system:	https://www.doi.org/10.1021/acs.jced.6b00879
DMF + Methylformamide + MCl (M = Na, K, Rb and Cs) + Water Systems in the Temperature Range 288.15-318.15 K:	https://www.doi.org/10.1016/j.jct.2016.08.014
Thermodynamic studies of (RbF + RbCl + H2O) and (CsF + CsCl + H2O) ternary systems from potentiometric measurements at T = 298.2 K:	https://www.doi.org/10.1021/acs.jced.6b00024
Aqueous Quaternary System Rb+, Mg2+//Cl-, borate-H2O at 298 K:	https://www.doi.org/10.1016/j.jct.2005.05.005
Thermodynamic investigation of aqueous 18-crown-6 with rubidium and cesium ions: Apparent molar volumes and apparent molar heat capacities of	https://www.doi.org/10.1016/j.fluid.2014.01.037
Solid-liquid equilibrium in the aqueous system containing the chlorides of rubidium and cesium at	https://www.doi.org/10.1016/j.jct.2016.12.003
Thermodynamics and phase equilibrium of the high concentration aqueous 18-crown-6 + rubidium chloride and (18-crown-6 + cesium chloride) systems at the temperatures	https://www.doi.org/10.1016/j.jct.2010.01.017
Solid-liquid equilibrium in the ternary system RbCl + CsCl + H2O at T = 298.15 K and at the pressure 0.35 MPa:	https://www.doi.org/10.1021/je400959n
Enthalpies of formation and lattice enthalpies of alkaline metal acetates: Glycerin + MCl + H2O (M = Na, K, Rb, Cs) at (298.15 and 308.15) K:	https://www.doi.org/10.1016/j.tca.2004.11.004
Solubilities, Densities, and Refractive Indices for the Ternary Systems Glycerin + MCl + H2O (M = Na, K, Rb, Cs) at (298.15 and 308.15) K:	https://www.doi.org/10.1021/je200443t
Phase equilibrium and activity coefficients in ternary systems at 298.15 K: RbCl/CsCl + ethylene glycol + water:	https://www.doi.org/10.1016/j.jct.2016.03.027
Thermochemistry of NaRb[B4O5(OH)4]*4H2O: Calculation + (water):	https://www.doi.org/10.1016/j.tca.2006.05.001
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7791119&Units=SI
Measurements and Correlations of the Solid Liquid Equilibrium of RbCl/CsCl + [Cnmim]Cl (n = 2, 4, 6, 8) + H2O Ternary Systems at T = (288.15, 298.15, and 308.15) K:	https://www.doi.org/10.1021/je4007986
Temperature Dependence of the Density of Aqueous Alkali Halide Salt Solutions: by Experiment and Molecular Simulation:	https://www.doi.org/10.1021/je500420g

Legend

pvap:	Vapor pressure
rhos:	Solid Density