COMPONENTS:
(1) Rubidium chloride; RbCl; [7791-11-9]
(2) Rubidium chlorate; $RbClO_3$; [13446-71-4]
(3) Cesium chloride; CsCl; [7647-17-8]
(4) Cesium chlorate; $CsClO_3$; [13763-67-2]
(5) Water; H_2O; [7732-18-5]

ORIGINAL MEASUREMENTS:
Arkhipov, S.M.; Kashina, N.I.; Kuzina, V.A.
Zh. Neorg. Khim. 1970, *15*, 1640-2; *Russ. J. Inorg. Chem. (Engl. Transl.)* 1970, *15*, 840-2.

VARIABLES:
Composition; T/K = 298

PREPARED BY:
Hiroshi Miyamoto

EXPERIMENTAL VALUES:

Composition of saturated solutions

Rubidium Chloride mass %	Rubidium Chloride mol % (compiler)	Rubidium Chlorate mass %	Rubidium Chlorate mol % (compiler)	Cesium Chloride mass %	Cesium Chloride mol % (compiler)	Cesium Chlorate mass %	Cesium Chlorate mol % (compiler)	Density g cm^{-3}	Nature of the solid phase[a]
-	-	-	-	65.83	17.30	0.54	0.11	1.868	A+B
0.33	0.12	0.23	0.060	65.47	17.14	0.20	0.041	-	E+G
1.43	0.521	0.24	0.063	64.35	16.83	0.21	0.043	-	"
2.42	0.891	0.26	0.069	63.86	16.88	0.22	0.045	-	"
3.98	1.46	0.28	0.073	62.07	16.31	0.24	0.049	-	"
7.38	2.62	0.33	0.084	57.34	14.62	0.27	0.054	-	"
14.07	5.107	0.37	0.096	51.91	13.53	0.32	0.065	1.897	"
15.85	5.719	0.38	0.098	49.93	12.94	0.32	0.065	1.897	F+G
16.60	6.037	0.39	0.10	49.56	12.95	0.33	0.067	1.906	"
17.44	6.265	0.40	0.10	48.17	12.43	0.34	0.068	1.886	"
19.36	6.750	0.41	0.10	44.92	11.25	0.34	0.066	1.831	"
19.49	6.588	0.47	0.11	43.17	10.48	0.40	0.076	1.794	"
23.56	7.527	0.51	0.12	36.38	8.348	0.41	0.073	1.755	"
29.48	8.901	0.51	0.11	27.69	6.005	0.42	0.071	-	"
35.04	10.11	0.52	0.11	19.80	4.103	0.43	0.069	1.613	"
40.36	11.08	0.52	0.10	11.75	2.316	0.44	0.067	1.532	"
40.89	11.15	0.54	0.11	10.84	2.123	0.45	0.069	-	"
45.08	11.83	0.56	0.11	4.36	0.821	0.49	0.072	-	"
48.20	12.33	0.82	0.15	-	-	-	-	1.466	C+D

[a] A = CsCl; B = $CsClO_3$; C = RbCl; D = $RbClO_3$; E = Cs(Rb)Cl solid soln;
F = Rb(Cs)Cl solid soln; G = (Rb, Cs)ClO_3 solid soln.

continued.....

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Rubidium chloride; RbCl; [7791-11-9] (2) Rubidium chlorate; $RbClO_3$; [13446-71-4] (3) Cesium chloride; CsCl; [7647-17-8] (4) Cesium chlorate; $CsClO_3$; [13763-67-2] (5) Water; H_2O; [7732-18-5]	Arkhipov, S.M.; Kashina, N.I.; Kuzina, V.A. *Zh. Neorg. Khim.* 1970, *15*, 1640-2; *Russ. J. Inorg. Chem.* (*Engl. Transl.*) 1970, *15*, 840-2.

EXPERIMENTAL VALUES:

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The method of the solubility measurement was similar to that described in ref 1. The isothermal method was used. Equilibrium was reached in 30 hours. Samples of the solid and liquid phases were analyzed. Rubidium and cesium content were determined by flame photometry. Chlorate was determined by adding an excess of iron(II) sulfate to a solution of the specimen and back-titrating with potassium permanganate. The densities of the saturated solutions were also measured.	"Chemically pure" grade salts with 99.8% or more purity were used.
	ESTIMATED ERROR: Nothing specified.
	REFERENCES: 1. Arkhipov, S.M.; Kashina, N.I.; Kuzina, V.A. *Zh. Neorg. Khim.* 1968, *13*, 2872; *Russ. J. Inorg. Chem.* (*Engl. Transl.*) 1968, *13*.