COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Lithium chlorate; $LiClO_3$; [13453-71-9]	Miravitlles, Mille L.
(2) 2-Propanone (acetone); C_3H_6O; [76-64-1]	*Ann. Fis. Quim. (Madrid)* 1945, *41*, 120-37.
VARIABLES:	**PREPARED BY:**
T/K = 288, 293 and 298	R. Herrera

EXPERIMENTAL VALUES:

	Solubility[a]	
t/°C	mass %	mol kg^{-1}
15	0.1563	0.01732
20	0.1502	0.01664
25	0.1424	0.01578

[a]Molalities calculated by H. Miyamoto

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Saturated solutions were prepared in an Erlenmeyer flask by mixing the dried acetone with an excess of halate for two hours. The solution was constantly stirred by bubbling dry air (air was dried by passing it through $CaCl_2$ while pumping it into the solution). Air going out from the flask after bubbling through the solution carried some acetone vapor during this operation. The solution temperature was kept constant by immersing the flask in a constant temperature water bath. After two hours, the air exit was closed. The resulting pressure forced the saturated solution from the Erlenmeyer through a tube filled with cotton (which acted as a filter), and was collected in a small flask. This flask was stoppered and weighed. The halate contained in the sample was weighed after complete evaporation of acetone. In all cases, weights were reported to the fourth decimal figure.

SOURCE AND PURITY OF MATERIALS:

Commercial redistilled acetone. This acetone was then dehydrated three times by leaving it in contact with calcium chloride for forty eight hours each time. Fresh $CaCl_2$ was used in each operation. Finally the dehydrated acetone was distilled at 56.3°C.

Source and purity of $LiClO_3$ not specified.

ESTIMATED ERROR:

Nothing specified.

REFERENCES: