COMPONENTS:	EVALUATOR:
(1) 2,4-Dibromophenol; $C_6H_4Br_2O$; [615-58-7]	A. Vesala, Department of Chemistry and Biochemistry, University of Turku.
(2) Water; H_2O; [7732-18-5]	November 1979

CRITICAL EVALUATION:

Only a rather old value, that of Werner (1), has been found in the literature for the solubility of 2,4-dibromophenol in water. Considering the incomplete information on the purity of the reagents used and the equilibration method itself coupled with the fact that the instrumentation used was relatively simple, one must regard the reported value as doubtful.

It must be noted that the solubility of this compound, like any protolytic solute, is considerably dependent upon the acidity of the solution. Here it is assumed that the pH value is that for the saturated solution without the addition of other protolytic solutes. Thus, the solubility value reported is for such a saturated solution.

Based upon an assumed density of 1.0 g/cm^3 for the solution (an estimate which has no effect on the accuracy of the reported value), the doubtful solubility of 2,4-dibromophenol in water at 298 K is as follows:

T/K	10^3mol(1)/dm^3	g(1)/kg	$10^4 x$(1)
298	8.	2.	1.4

REFERENCES

1. Werner, E. *Ann. Chim. Phys. Ser. 6* 1884, 571-2.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) 2,4-Dibromophenol; $C_6H_4Br_2O$; [615-58-7] (2) Water; H_2O; [7732-18-5]	Werner, E. *Ann. Chim. Phys. Ser. 6* 1884, *Vol. 3*, 571-2.
VARIABLES:	PREPARED BY:
One temperature	A. Vesala

EXPERIMENTAL VALUES:

t/°C	g(l)/dm^3 [a]	10^3mol(l)/dm^3 [b]	$10^4 x$(l) [b]
15	1.94	7.701	1.391

a. Reported.
b. Calculated by F. W. Getzen.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The saturation procedure was not specified. The analysis of the saturated solution was done by titration with a standardized bromine solution.	$C_6H_4Br_2O$: Synthesized product, melting point 40°C, boiling point 154°C at 17 mmHg. H_2O: Source and purity not specified.
	ESTIMATED ERROR:
	REFERENCES: