

<p>COMPONENTS:</p> <ol style="list-style-type: none"><li>1. Mercury(I) sulfite; <math>\text{Hg}_2\text{SO}_3</math>; [89146-33-8]</li><li>2. Water; <math>\text{H}_2\text{O}</math>; [7732-18-5]</li></ol>	<p>EVALUATOR:</p> <p>H.D. Lutz, Dept. of Chemistry, University of Siegen, FR Germany.</p> <p>January 1984.</p>
<p>CRITICAL EVALUATION:</p> <p>Information on mercury sulfites is very scarce (1-3). Numerical data on the solubility of <math>\text{Hg}_2\text{SO}_3</math> have been reported only by Kryukova (4), who gave a value of <math>1.5 \times 10^{-11} \text{ mol dm}^{-3}</math> (molarity) at 298 K. The existence of mercury(I) sulfite, however, is not fully confirmed (1,3). Compounds identified as <math>\text{Hg}_4(\text{SO}_3)_2 \cdot \text{H}_2\text{O}</math> and <math>\text{Hg}_2\text{SO}_3 \cdot \text{HgSO}_3 \cdot 4\text{H}_2\text{O}</math> were claimed as soluble and insoluble in cold water, respectively (1,2).</p> <p>The data given are doubtful, because the nature of the solid phase is not defined.</p> <p>REFERENCES</p> <ol style="list-style-type: none"><li>1. <i>Gmelins Handbuch der Anorganischen Chemie</i>, 8. Aufl. Quecksilber, Teil B, Lieferung 3, Springer-Verlag, Berlin <u>1974</u>, p. 1002.</li><li>2. Divers, E.; Shimidzu, T. <i>J. Chem. Soc.</i> <u>1886</u>, 49, 533.</li><li>3. Seubert, K.; Elten, M. <i>Z. Anorg. Allg. Chem.</i> <u>1893</u>, 4, 44.</li><li>4. Kryukova, T.A. <i>Zh. Fiz. Khim.</i> <u>1939</u>, 13, 693.</li></ol>	

<b>COMPONENTS:</b> 1. Mercury(I) sulfite; $\text{Hg}_2\text{SO}_3$ ; [89146-33-8] 2. Water; $\text{H}_2\text{O}$ ; [7732-18-5]	<b>ORIGINAL MEASUREMENTS:</b> Kryukova, T.A <i>Zh. Fiz. Khim.</i> <u>1939</u> , 13, 693-700.
<b>VARIABLES:</b> One temperature: 298 K	<b>PREPARED BY:</b> B. Engelen
<b>EXPERIMENTAL VALUES:</b> The solubility of $\text{Hg}_2\text{SO}_3$ is reported to be $1.5 \times 10^{-11} \text{ mol dm}^{-3}$ .	
<b>AUXILIARY INFORMATION</b>	
<b>METHOD APPARATUS/PROCEDURE:</b> Solubility was determined polarographically from the polarization potentials of a mercury electrode in a solution containing $0.1 \text{ mol dm}^{-3} \text{ KNO}_3$ and $0.02 \text{ mol dm}^{-3}$ sulfite.	<b>SOURCE AND PURITY OF MATERIALS:</b> Not given.
	<b>ESTIMATED ERROR:</b>
	<b>REFERENCES:</b>