I

| COMPONENTS:   | ORIGINAL MEASUREMENTS:   |
|---|--|
| <ol> <li>Acetamide, N-[(4-aminophenyl)sulfonyl]-<br/>N-(3,4-dimethyl-5-isoxazolyl)-<br/>(N<sup>1</sup>-acetylsulfisoxazole);<br/>C<sub>13H15</sub>N<sub>3</sub>04S; [80-74-0]</li> <li>Phosphoric acid, monopotassium salt;<br/>KH<sub>2</sub>P0<sub>4</sub>; [7778-77-0]</li> <li>Sodium hydroxide; NaOH; [1310-73-2]</li> <li>Water; H<sub>2</sub>O; [7732-18-5]</li> </ol> | Muzakami, S.; Nagata, K.<br>Ann. Rept. Shionogi Res. Lab. <u>1956</u> ,<br>6, 58-64. |
| VARIABLES:<br>pH  | PREPARED BY:<br>R. Piekos  |

## EXPERIMENTAL VALUES:

| рН  | Solubility of N <sup>1</sup> -acetylsulfisoxazole<br>in Clark and Lubs buffer mixtures at 37 <sup>o</sup> C |                               |
|-----|---|-------------------------------|
|     | mg%   | $10^4 \text{ mol } dm^{-3} a$ |
| 6.5 | 3.93  | 1.27                          |
| 7.0 | 3.83  | 1.24                          |
| 7.5 | 4.19  | 1.35                          |

<sup>a</sup> calculated by compiler

## AUXILIARY INFORMATION

| METHOD/APPARATUS/PROCEDURE:                                      | SOURCE AND PURITY OF MATERIALS:   |
|--|---|
| About 100 mg of N <sup>1</sup> -acetylsulfisoxazole was          | N <sup>1</sup> -acetylsulfisoxazole was synthesized by  |
| placed in a flask and 100 cm <sup>3</sup> of the buffer          | the authors and dried over CaCl <sub>2</sub> .  |
| soln of a known pH was added. The mixt was                       | The source and purity of the remaining  |
| vigorously agitated for 4 h in a water bath                      | materials was not specified.  |
| at $37.0\pm0.2^{\circ}$ C and filtered through a Toyo            |   |
| No. 6 filter paper, keeping the temp at about                    |   |
| $40^{\circ}$ C. The first 10 cm <sup>3</sup> of the filtrate was |   |
| discarded and in the following 15 cm <sup>3</sup> , kept         |   |
| still at about 40 <sup>0</sup> C, the sulfonamide concn          | ESTIMATED ERROR:  |
| was detd colorimetrically at 540 nm using a                      | Soly: the error was below $\pm 3\%$ (authors).  |
| Tsuda reagent and a Beckman Model B spectro-                     | Temp: ±0.2 <sup>o</sup> C (authors); pH: not specified<br>( a Beckman type G pH meter was used ). |
| photometer.  |   |
|  | REFERENCES :  |
|  |   |
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|  |   |
|  |   |

| COMPONENTS:  | ORIGINAL MEASUREMENTS:                                  |
|--|---|
| <ul> <li>(1) Acetamide, N-[(4-aminophenyl)sulfonyl]-<br/>N-(3,4-dimethyl-5-isoxazolyl)-<br/>(N<sup>1</sup>-acetylsulfisoxazole);<br/>C<sub>13</sub>H<sub>15</sub>N<sub>3</sub>O<sub>4</sub>S; [80-74-0]</li> <li>(2) 1,2-Benzenedicarboxylic acid, monopotas<br/>sium salt; C<sub>8</sub>H<sub>5</sub>KO<sub>4</sub>; [877-24-7]</li> <li>(3) Sodium hydroxide; NaOH; [1310-73-2]</li> <li>(4) Water; H<sub>2</sub>O; [7732-18-5]</li> </ul> | Ann. Rept. Shionogi Res. Lab. <u>1956,</u><br>6, 58-64. |
| VARIABLES: pH  | PREPARED BY:<br>R. Piekos                               |
| EXPERIMENTAL VALUES:   |   |

| рН  | Solubility of N <sup>1</sup> -acetylsulfisoxazole<br>in Clark and Lubs buffer mixtures at 37 <sup>0</sup> C |                               |
|-----|---|-------------------------------|
|     | mg%   | $10^4 \text{ mol } dm^{-3} a$ |
| 4.0 | 6.04  | 1.95                          |
| 4.5 | 5.27  | 1.70                          |
| 5.0 | 4.86  | 1.57                          |
| 5.5 | 4.43  | 1.43                          |
|     |   |                               |

<sup>a</sup> calculated by compiler

| AUXILIARY INFORMATION   |  |  |
|---|--|--|
| METHOD/APPARATUS/PROCEDURE:<br>About 100 mg of N <sup>1</sup> -acetylsulfisoxazole was<br>placed in a flask and 100 cm <sup>3</sup> of the buffer<br>soln of a known pH was added. The mixt was<br>vigorously agitated for 4 h in a water bath<br>at $37\pm0.2^{\circ}$ C and filtered through a Toyo No.6<br>filter paper, keeping the temp at about 40°C.<br>The first 10 cm <sup>3</sup> of the filtrate was discard-<br>ed and in the following 15 cm <sup>3</sup> , kept still<br>at about 40°C, the sulfonamide concn was | ESTIMATED ERROR:   |  |
| detd colorimetrically at 540 nm using a<br>Tsuda reasgent and a Beckman Model B spectro-<br>photometer.   | Soly: the error was below ±3% (authors).<br>Temp: ±0.2°C (authors)<br>pH : not specified (a Beckman type G pH<br>meter was used).<br>REFERENCES: |  |

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