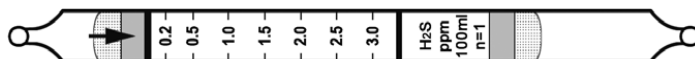


## Hydrogen Sulfide H<sub>2</sub>S

No. N-10-103-04



|                     | Extended Range | Standard Range | Extended Range |
|---------------------|----------------|----------------|----------------|
| Range (ppmv)        | 0.1 - 1.5      | 0.2 - 3        | 0.4 - 6        |
| No. of Pump Strokes | 2              | 1              | 0.5            |
| Sample Volume (mL)  | 200            | 100            | 50             |
| Sample Time (min)   | 2 x 1.5        | 1.5            | 1              |
| Correction Factor   | 0.5            | 1              | 2              |

Precision (Relative Standard Deviation)\*:  $\leq \pm 12\%$

Linearity with No. of Pump Strokes:  $r^2 = 0.999$

Humidity: Tubes must be used @ <5% RH. Reading drops sharply above 5% RH.

Temperature Range: No effect between 0 - 40°C (32 - 104°F).

Storage Life: 1 year in darkness at 5 - 25°C (40 - 77°F). Refrigeration preferred.

Color Change: Pale orange → Pink

Reaction Principle:  $\text{H}_2\text{S} + \text{HgCl}_2 \rightarrow \text{Mercury sulfide product} + \text{HCl}$

$\text{HCl} + \text{Base} \rightarrow \text{Chloride Salt} + \text{H}_2\text{O}$  (dye color change)

| Cross-sensitivity:<br>ubstance | Concentration<br>(ppmv) | Apparent<br>Reading* |
|--------------------------------|-------------------------|----------------------|
| Methyl mercaptan               | 2                       | 0.4                  |
| Butyl mercaptan                | 2                       | 0.3                  |
| NH <sub>3</sub>                | 100                     | 0                    |
| NO <sub>2</sub>                | 5                       | 0                    |
| SO <sub>2</sub>                | 100                     | 0                    |
| CS <sub>2</sub>                | 100                     | 0                    |
| CO                             | 250                     | 0                    |
| Hexane                         | 100                     | 0                    |
| Isobutylene                    | 100                     | 0 <sup>^</sup>       |
| Toluene                        | 100                     | 0                    |

\* Data based on NAGCO pumps and tubes used in standard range.

<sup>^</sup> Reduces response when mixed with H<sub>2</sub>S.

Other Possible Interferences: HCl and other acids and bases.