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# Gas Detection Tube Data Sheet

## Hydrogen Sulfide H<sub>2</sub>S No. 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:  $H_2S + HgCl_2 \rightarrow$  Mercury sulfide product + HCl

$HCl + Base \rightarrow$  Chloride Salt + H<sub>2</sub>O (dye color change)

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent 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 RAE pumps and tubes used in standard range.

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

Caution: Dispose of spent or expired tubes according to local regulations.  
Possibly hazardous materials are given under the section Reaction Principle.