



Gas Detection Tube Data Sheet

Hydrogen Sulfide H₂S No. 10-103-06

	Extended Range	Extended Range	Standard Range
Range (ppmv)	0.25 – 1.75	0.5 – 3.5	1 - 7
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	0.25	0.5	1

Precision (Relative Standard Deviation)*: ≤ ± 12%

Linearity with No. of Pump Strokes: r² = 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: H₂S + HgCl₂ → Mercury sulfide product + HCl

HCl + Base → Chloride Salt + H₂O (dye color change)

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
Methyl mercaptan	2	0.2
Butyl mercaptan	2	0.15
NH ₃	100	0
NO ₂	5	0
SO ₂	100	0
SO ₂	2000	0 [#]
CS ₂	100	0
CO	250	0
Hexane	100	0
Isobutylene	100	0 [^]
Toluene	100	0

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

[#] Forms orange color over entire tube but pink H₂S reading is unaffected in mixtures.

[^] Reduces response when mixed with H₂S.

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