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# Gas Detection Tube Data Sheet

## Mercaptans RSH

### No. 10-129-20

	Extended Range	Standard Range	Extended Range
Range (ppmv)	2.5 - 60	5 - 120	10 - 240
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 2.0	2.0	1.0
Correction Factor	0.5	1	2.1

Precision (Relative Standard Deviation)\*:  $\leq \pm 20\%$

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

Humidity: No effect between 5 - 90% 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: White → Yellow

Reaction Principle:  $2RSH + PdSO_4 \rightarrow (RS)_2Pd + H_2SO_4$

<u>Cross-sensitivity:</u> Substance	Concentration (ppmv)	Apparent Reading*	Corr. Factor
H <sub>2</sub> S	500	0 <sup>1</sup>	-
CO	500	0 <sup>2</sup>	-
Diethyl sulfide	5000	30 <sup>3</sup>	-
Ethyl mercaptan	60	60	1.0
Propyl mercaptan	60	60	1.0
Butyl mercaptan	60	29	2.0
Acetylene	2000	0 <sup>4</sup>	-
Ethylene	2000	0 <sup>5</sup>	-

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

<sup>1</sup> Up to 500 ppm H<sub>2</sub>S is trapped in the pretreatment layer.

<sup>2</sup> Gray through the entire tube, will not affect RSH reading in mixtures.

<sup>3</sup> Interferes in mixtures; may result in high response.

<sup>4</sup> Pale brown through the entire tube, will not affect RSH reading in mixtures.

<sup>5</sup> Light peach through the entire tube, will not affect RSH reading in mixtures.

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