



RAE Systems, Inc.
1339 Moffett Park Dr.
Sunnyvale, CA 94089 USA

Telephone 408-752-0723
Tube Orders 1-888-723-8823
Web www.raesystems.com

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 ₂ S	500	0 ¹	-
CO	500	0 ²	-
Diethyl sulfide	5000	30 ³	-
Ethyl mercaptan	60	60	1.0
Propyl mercaptan	60	60	1.0
Butyl mercaptan	60	29	2.0
Acetylene	2000	0 ⁴	-
Ethylene	2000	0 ⁵	-

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

¹ Up to 500 ppm H₂S is trapped in the pretreatment layer.

² Gray through the entire tube, will not affect RSH reading in mixtures.

³ Interferes in mixtures; may result in high response.

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

⁵ 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.