



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

## Phenol C<sub>6</sub>H<sub>5</sub>OH No. 10-139-05

	Extended Range	Standard Range	Extended Range	Extended Range
Range (ppmv)	0.5 - 11	1 - 25	2.4 - 60	7 - 180
No. of Pump Strokes	4	2	1	0.5
Sample Volume (mL)	400	200	100	50
Sample Time (min)	4 x 1.5	2 x 1.5	1.5	1.0
Correction Factor	0.45	1	2.4	7.2

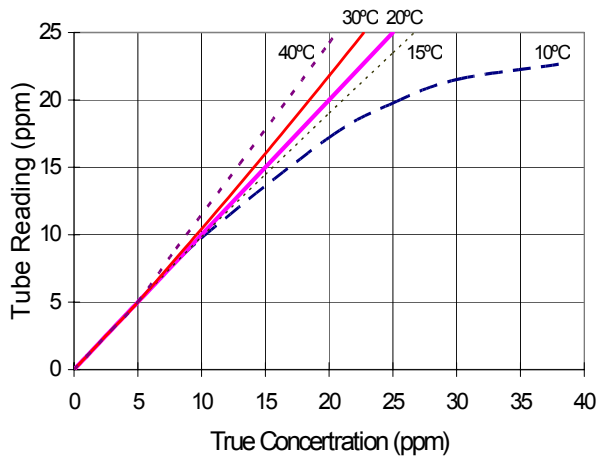
Precision (Relative Standard Deviation)\*:  $\leq \pm 20\%$

Linearity with No. of Pump Strokes:  $r^2 = 0.996$

Humidity:

% Relative Humidity	10%	30%	50%	90%
Correction Factor	1.0	1.25	1.6	1.8

Temperature Range:



Storage Life: 1.5 years in darkness at 5-25°C (40-77°F). Refrigeration preferred.

Color Change: Pale Yellow → Gray

Reaction Principle: C<sub>6</sub>H<sub>5</sub>OH + Ce(NH<sub>4</sub>)<sub>2</sub>(NO<sub>3</sub>)<sub>6</sub> → Cerium-Phenol complex

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



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<u>Cross-sensitivity:</u> Substance	Concentration (ppmv)	Apparent Reading*
H <sub>2</sub> S	100	0
NH <sub>3</sub>	500	0
NO	400	0
NO <sub>2</sub>	400	0
SO <sub>2</sub>	200	0
CH <sub>4</sub>	25000	0
CO <sub>2</sub>	5000	0
CO	500	0
HCHO	500	0
Acetone	2000	0
Isopropanol	2000	0
Benzene	2000	0
Toluene	2000	0
Styrene	2000	0
n-Hexane	2000	0
Isobutylene	100	0

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

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