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# Gas Detection Tube Data Sheet

## Hydrogen Cyanide HCN No. 10-126-10

	Extended Range	Standard Range	Extended Range
Range (ppmv)	1.25 - 30	2.5 - 60	5 - 120
No. of Pump Strokes	4	2	1
Sample Volume (mL)	400	200	100
Sample Time (min)	4 x 2.5	2 x 2.5	2.5
Correction Factor	0.4	1	2

Precision (Relative Standard Deviation)\*:  $\leq \pm 10\%$

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

Humidity: 5% - 95%RH

Humidity (RH)	<5%	10%	50%	95%
Corr. Factor	1.0	1.0	1.2	1.4

Temperature Range: No effect 0 - 40°C (32 - 104°F)

Storage Life: 1 year in darkness at 5 - 25°C (40 - 77°F). Refrigeration preferred.

Color Change: Yellow → Red

Reaction Principle:  $2\text{HCN} + \text{HgCl}_2 \rightarrow \text{Hg}(\text{CN})_2 + 2\text{HCl}$

$\text{HCl} + \text{Base} \rightarrow \text{Chloride Salt} + \text{H}_2\text{O}$  (dye color change)

Cross-sensitivity: Substance	Concentration (ppmv)	Apparent Reading*
H <sub>2</sub>	2000	0
CH <sub>4</sub>	25000	0
CO	300	0
H <sub>2</sub> S	100	<1 <sup>#</sup>
HCl	100	<1 <sup>#</sup>
SO <sub>2</sub>	20	20 <sup>#</sup>
NH <sub>3</sub>	50	0
CO <sub>2</sub>	5000	0

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

<sup>#</sup> Measured in dry gas; at >20% RH, no response is observed by these gases.

Note: Color boundary is sharp in ambient, humid air and somewhat diffuse in very dry air.

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