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Gas Detection Tube Data Sheet

Trichloroethylene CHCl=CCl₂ No. 10-119-20

	Extended Range	Standard Range	Extended Range
Range (ppmv)	2.5 - 50	5 - 100	10 - 230
No. of Pump Strokes	2	1	0.5
Sample Volume (mL)	200	100	50
Sample Time (min)	2 x 3	3	2
Correction Factor	0.5	1	2.3

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

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

Humidity: No effect 0 - 95% RH

Temperature Range: 0 - 40°C
(32 - 104°F)

Temp (°C/°F)	0/32	10/50	25/77	40/104
Corr. Factor	1.6	1.3	1.0	1.1

Storage Life and Conditions: 1 year in darkness at 5 - 25°C (40 - 77°F)

Color Change: Yellow → Purple

Reaction Principle: $\text{Cl}_2\text{C}=\text{CHCl} + \text{PbO}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{HCl}$
 $\text{HCl} + \text{Base} \rightarrow \text{Chloride (dye color change)}$

<u>Cross-sensitivity:</u> Substance	Concentration (ppmv)	Apparent Reading*
Tetrachloroethylene	40	70
1,2-Dichloroethylene	100	20
Vinyl Chloride	100	10
1,1,2-Trichloroethane	100	<0.5
Acetone	1000	0
Toluene	1000	0
p-Xylene	1000	0
Cl ₂	10	10 (pale beige)
HCl	50	21
NO	500	0
NO ₂	500	60 (pale beige)

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

Other Possible Interferences: Acid gases. No response to H₂S, CO or CH₄.

Caution: Use of connector tubing other than that supplied may reduce response.

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