

**Performance**

Measuring Range	0.25 to 0.5ppm	0.5 to 1ppm	1 to 20ppm	20 to 54ppm
Number of Pump Strokes	4	2	1	1/2
Correction Factor	1/4	1/2	1	2.7
Sampling Time	1 minute per pump stroke			
Detecting Limit	0.05 ppm (n=4)			
Colour Change	Yellow → Reddish brown			
Reaction Principle	Vinyl chloride is oxidized to form hydrogen chloride to produce red stain. $\text{CH}_2:\text{CHCl} + \text{Cr}^{6+} + \text{H}_2\text{SO}_4 \rightarrow \text{HCl}$ $\text{HCl} + \text{Base} \rightarrow \text{Chlorides}$			
Coefficient of Variation	10% (for 1 to 6 ppm), 5% (for 6 to 20 ppm)			
Shelf Life	2 Years			
Corrections for temperature & humidity	Unnecessary			

Store the tubes in the refrigerator to keep at 10°C (50°F) or below.

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Change colour by itself
Ethylene	≥1000 ppm	Minus error	No discoloration
Tetrachloroethylene	≥3 times	Plus error	Produce reddish brown
Trichloroethylene	≥1/2	Plus error	Produce reddish brown
Toluene, Xylene	≥500 ppm	Minus error	No discoloration
Benzene,	≥400 ppm	Minus error	No discoloration

Other substance measurable with this detector tube

Substance	Correction Factor	Pump Strokes	Measuring Range
1,3-Dichloropropane	Factor: 0.5	2	0.5 to 10 ppm
p-Ethyl benzylchloride	Factor: 2.5	2	2.5 to 50 ppm
Ethyl chloroformate	Factor: 7	2	7 to 140 ppm
2-Methyl allyl chloride	Factor: 2.75	1	2.8 to 55 ppm
Methyl Chloroformate	Factor: 58	5	58 to 1160 ppm
Propylene dichloride	Factor: 40	2	40 to 800 ppm
1,2,4-Trichlorobenzene	Factor: 0.65	4	0.65 to 13 ppm

Calibration gas generation Permeation tube method

TLV-TWA	TLV-STEL	Explosive range
1 ppm	-	3.6 to 23 %