

**Performance**

Measuring Range	2 to 5 ppm	5 to 100 ppm	100 to 250 ppm
Number of Pump Strokes	2	1	1/2
Correction Factor	0.4	1	2.5
Sampling Time	1 minute per pump stroke		
Detecting Limit	0.4 ppm (n=2)		
Colour Change	Yellow → Reddish purple		
Reaction Principle	<p>Tetrachloroethylene is decomposed by oxidizing agent to liberate hydrogen chloride, which produce reddish purple stain.</p> $\text{Cl}_2\text{C:CCl}_2 + \text{PbO}_2 + \text{H}_2\text{SO}_4 \longrightarrow \text{HCl}$ $\text{HCl} + \text{Base} \longrightarrow \text{Chloride}$		
Coefficient of Variation	10% (for 5 to 20 ppm), 5% (for 20 to 100 ppm)		
Shelf Life	2 Years		
Corrections for temperature & humidity	Temperature correction is necessary		
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
Nitric oxide, Nitrogen dioxide	-	No effect	No discoloration
Chlorine, Bromine, Hydrogen chloride	-	Plus error	Produce reddish purple
Acetone	≤200 ppm	No effect	No discoloration
Unsaturated halogenated HCs		Plus error	Produce reddish purple
Aromatic hydrocarbons	≥100 ppm	Minus error	No discoloration

Calibration gas generation Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
25ppm	100ppm	10.8 to 54.5% (in oxygen)