

**Performance**

Measuring Range	1 to 2 ppm	2 to 25 ppm	25 to 75 ppm
Number of Pump Strokes	2	1	1/2
Correction Factor	1/2	1	3
Sampling Time	1.5 minutes per pump stroke		
Detecting Limit	0.4 ppm (n=2)		
Colour Change	Yellow→ Pink		
Reaction Principle	Tetrachloroethylene is decomposed by nascent oxygen by oxidizing agent to liberate hydrogen chloride which discolours indicator to reddish purple. $\text{Cl}_2\text{C}:\text{CCl}_2 + \text{PbO}_2 + \text{H}_2\text{SO}_4 \longrightarrow \text{HCl}$ $\text{HCl} + \text{Base} \longrightarrow \text{Chloride}$		
Coefficient of Variation	10% (for 2 to 5 ppm), 5% (for 5 to 25 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
Hydrogen chloride, Chlorine, Bromine	-	Plus error	Produces pink stain
Acetone	≤200 ppm	No effect	No discoloration
Unsaturated Halogenated Hydrocarbons	-	Plus error	Produces pink stain
Aromatic hydrocarbons	≥100ppm	Minus error	No discoloration

**Other substance measurable with this detector tube**

Substance	Correction Factor	Pump Strokes	Measuring Range
Pentachloroethane	20	1	40 to 500 ppm

**Calibration gas generation** Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
25ppm	100ppm	10.8 to 54.5% (In Oxygen)