

Performance				
Measuring Range	0.05 to 1.0%	1.0 to 2.5%		
Number of Pump Strokes	1	1/2		
Correction Factor	1	2.5		
Sampling Time	1 minute per pump stroke			
Detecting Limit	0.005% (n=1)			
Colour Change	White> Yellowish brown			
Reaction Principle	Trichloroethylene reduces iodine pentoxide to liberate iodine, which is yellowish brown in colour. Cl <sub>2</sub> C:CHCl + l <sub>2</sub> O <sub>5</sub> + H <sub>2</sub> S <sub>2</sub> O <sub>7</sub> → l <sub>2</sub>			
Coefficient of Variation	10% (for 0.05 to 0.3 %), 5% (for 0.3 to 1 %)			
Shelf Life	3 Years			
Corrections for temperature & humidity	Temperature correction is necessary			
Store the tubes at cool and dark place.				

## Possible coexisting substances and their interferences

Substance	Concentration	Interference	Change colour by itself
Carbon Monoxide	<u>≥</u> 0.1%	Plus error	Produces blackish brown stain.
Acetylene	<u>≥</u> 0.1%	Plus error	Produces blackish brown stain
Acetone	<u>≤</u> 6 times	No effect	Produces brown stain
Ethylene	<u>≥</u> 0.5%	Plus error	Produces blackish brown stain
Toluene, Xylene	<u>≤</u> 3 times	No effect	Produce brown stain
Hydrocarbons <u>≥</u> C3	-	Plus error	Produce blackish brown stain.
Tetrachloroethylene	-	Plus error	Produces Yellowish brown stain
1,1,1-Trichloroethane	-	Plus error	Produces Yellowish brown stain (ring)

## Other substance measurable with this detector tube

Substance	<b>Correction Factor</b>	pump strokes	Measuring range
Tetrachloroethylene	1.5	1	0.075 to 1.5%

## Calibration gas generation Static gas dilution method

TLV-TWA	TLV-STEL	Explosive range
10ppm	25ppm	-