



### Performance

<b>Measuring Range</b>	2 to 5ppm	5 to 200ppm	200 to 500ppm
<b>Number of Pump Strokes</b>	2	1	1/2
<b>Correction Factor</b>	0.4	1	2.5
<b>Sampling Time</b>	1.5 minutes per pump stroke		
<b>Detecting Limit</b>	0.2 ppm (n=2)		
<b>Colour Change</b>	White → Grey		
<b>Reaction Principle</b>	Chlorobenzene reacts with iodine pentoxide to liberate Iodine to discolour the reagent to grey. $\text{C}_6\text{H}_5\text{Cl} + \text{I}_2\text{O}_5 + \text{H}_2\text{S}_2\text{O}_7 \rightarrow \text{I}_2$		
<b>Coefficient of Variation</b>	15% (for 5 to 50 ppm), 10% (for 50 to 200 ppm)		
<b>Shelf Life</b>	3 Years		
<b>Corrections for temperature &amp; humidity</b>	Unnecessary		

Store the tubes at cool and dark place.

### Possible coexisting substances and their interferences

Substance	Concentration	Result	Change colour by itself
Carbon monoxide	≥0.1%	No effect (2layers)	Discolours whole layer
Acetylene, Hexane, Ethylene	≥0.2%	No effect(2 layers)	Discolours whole layer
Alcohols, Ketones	≥1%	Plus error	No discoloration
Esters	≥0.2%	Plus error	No discoloration
Aromatic hydrocarbons	-	Plus error	Discolours to grey

### Calibration gas generation Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
10ppm	-	1.3 to 9.6%