

**Performance**

Measuring Range	2 to 5 ppm	5 to 120 ppm	120 to 312 ppm
Number of Pump Strokes	4	2	1
Correction Factor	0.4	1	2.6
Sampling Time	2 minutes per pump stroke		
Detecting Limit	0.5 ppm (n=4)		
Colour Change	White → Dark green		
Reaction Principle	Benzene reduces iodine pentoxide to liberate iodine, which produces a brownish grey in colour $\text{C}_6\text{H}_6 + \text{I}_2\text{O}_5 + \text{H}_2\text{S}_2\text{O}_7 \rightarrow \text{I}_2$		
Coefficient of Variation	20% (for 5 to 40 ppm), 15% (for 40 to 120 ppm)		
Shelf Life	3 Years		
Corrections for temperature & humidity	Unnecessary		
Store the tubes at cool and dark place.			

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Change colour by itself
Hexane	≤100 ppm	No effect	No discoloration
Toluene	≤200 ppm	No effect	No discoloration
Xylene	≤300 ppm	No effect	No discoloration

Aromatic hydrocarbons other than benzene are trapped in the brown layer in the pre-treatment tube. If the pre-treatment reagent is entirely consumed (whole brown layer turns to dark brown), a higher reading will be given.

Calibration gas generation Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
0.5ppm	2.5ppm	1.3 to 7.1%