

**Performance**

Measuring Range	4 to 50 ppm	50 to 1200 ppm
Number of Pump Strokes	5	1
Correction Factor	1/5	1
Sampling Time	2 minutes per pump stroke	
Detecting Limit	1 ppm (n=5)	
Colour Change	Orange→ Dark green	
Reaction Principle	Propylene reduces potassium dichromate to form chromic sulfate, which is dark green in colour $\text{CH}_3(\text{CH}_2)_4\text{CH}_3 + \text{Cr}^{6+} + \text{H}_2\text{SO}_4 \longrightarrow \text{Cr}^{3+}$	
Coefficient of Variation	10% (for 50 to 400 ppm), 5% (for 400 to 1200 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
Acetylene	-	Plus error	Produce dark brown stain
Aromatic hydrocarbons	-	Plus error	Produce dark green stain
Esters, Ketones, Alcohols	-	Plus error	Produce dark green stain
Hydrogen sulphide	-	Plus error	Produce dark brown stain
Organic solvents ($\geq \text{C}_3$)	-	Plus error	Produce dark green stain
Sulphur dioxide	-	Plus error	Produce dark green stain

Other substance measurable with this detector tube

Substance	Correction Factor		No. of Pump Strokes			Measuring Range			
Acrylonitrile	Factor: 12		1			0.06 to 1.14%			
tert-Butyl alcohol	Factor: 10		2			0.05 to 1.2%			
Chlorocyclohexane	Factor: 1		2			50 to 1200 ppm			
Cyclohexane	Factor: 1.2		1			60 to 1440 ppm			
Tube 102L Reading (n=2)	50	100	200	400	600	800	1000	1200	
Diisobutyl Ketone Conc. (%)	0.2	0.3	0.5	0.7	0.8	0.9	1.0	1.05	

Calibration gas generation High pressure gas cylinder method

TLV-TWA	TLV-STEL	Explosive range
50ppm	-	1.1 to 7.5%