

Performance				
Measuring Range	1.25 to 2.5 ppm	2.5 to 30 ppm	30 to 60 ppm	
Number of Pump Strokes	5	3	2	
Correction Factor	1/2	1	2	
Sampling Time	3 minutes per pump stroke			
Detecting Limit	0.25 ppm (n=5)			
Colour Change	Pale yellow ──► Pale green			
Reaction Principle	Aniline reduces sodium dichromate to form phosphate, which is pale green in colour. $C_6H_5NH_2 + Cr^{6+} \longrightarrow Cr^{3+}$			
Coefficient of Variation	10% (for 2.5 to 10 ppm), 5% (for 10 to 30 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
Ammonia	<u>≥</u> 1/10 time	Plus error	No discoloration
Amines	<u>≥</u> 1/10 time	Plus error	No discoloration
Aromatic amines	-	Plus error	Produces pale green discolouration

## Other substance measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
N-methylaniline	Factor:1.4	2	3.5 to 42 ppm
N,N-Dimethylaniline	Factor:1.0	3	2.5 to 30 ppm
o-Toluidine	Factor: 2.0	2	5 to 60 ppm

## Calibration gas generation Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
2ppm	-	1.3 to 11%