



Performance

When used, these tubes are to be connected.

Measuring range	0.2 to 20 ppm	20 to 66 ppm
Number of pump strokes	3 (300 ml)	1 (100 ml)
Correction factor	1	3.3
Sampling time	6 min	2 min

Detecting limit : 0.1 ppm (3 pump strokes)

Colour change : White → Brown

Corrections for temperature & humidity : Unnecessary

Relative standard deviation : 10 % (for 0.2 to 5 ppm) , 5 % (for 5 to 20 ppm)

Shelf life : 2 years

Reaction principle

Pretreatment tube : Interference gas removing

Detector tube : $2\text{C}_6\text{H}_6 + \text{HCHO} \rightarrow \text{C}_6\text{H}_5\text{CH}_2\text{C}_6\text{H}_5 + \text{H}_2\text{O}$

$\text{C}_6\text{H}_5\text{CH}_2\text{C}_6\text{H}_5 + \text{H}_2\text{S}_2\text{O}_7 \rightarrow \text{Condensation polymer}$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Hexane	≦ 500 ppm	No	} No
Toluene	≦ 300 ppm	No	
Xylene	≦ 350 ppm	No	

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

Calibration gas generation

Diffusion tube method