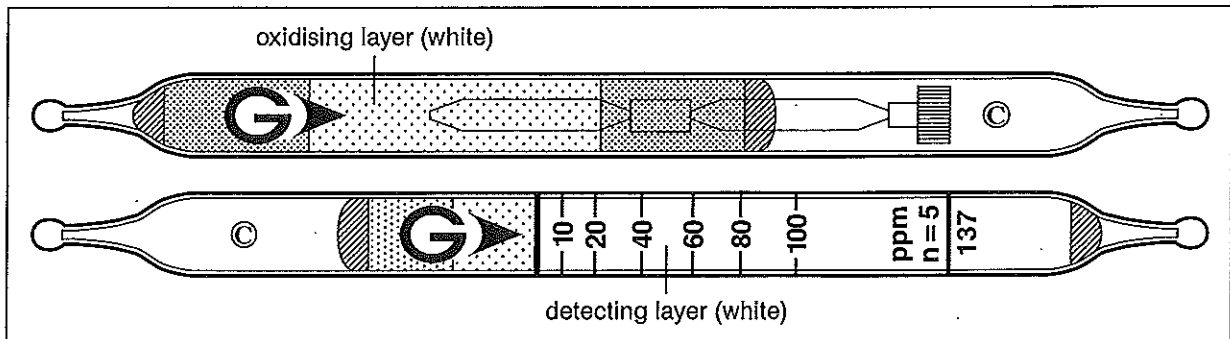


Chloroform CHCl_3

No.137



Performance

When used, these tubes are to be connected. See page 2-3.

Measuring range	4 to 10 ppm	10 to 100 ppm	100 to 400 ppm
Number of pump strokes	7 (700 ml)	5 (500 ml)	3 (300 ml)
Correction factor	0.4	1	4
Sampling time	10.5 min	7.5 min	4.5 min

Detecting limit : 1 ppm (7 pump strokes)

Colour change : White → Orange

Corrections for temperature & humidity : Humidity correction is necessary.

Relative standard deviation : 15 % (for 10 to 20 ppm), 10 % (for 20 to 100m)

Shelf life : 3 years

Reaction principle

Pretreatment tube : $\text{CHCl}_3 + \text{I}_2\text{O}_5 + \text{H}_2\text{S}_2\text{O}_7 \rightarrow \text{Cl}_2$

Detector tube : $\text{Cl}_2 + \text{o-Tolidine} \rightarrow \text{Orange product}$

Possible coexisting substances and their interferences (NOTE : Page 2-5)

Substance	Concentration	Interference	Changes colour by itself to
Bromine	$\cong 1/20$	+	} Orange
Chlorine	$\cong 1/20$	+	
Iodine	$\cong 1/20$	+	
Saturated halogenated hydrocarbons	$\cong 1/10$	+	
Unsaturated halogenated hydrocarbons	$\cong 1/20$	+	

Calibration gas generation

Diffusion tube method