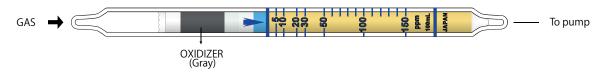
# **TETRACHLOROETHYLENE**



# 1. PERFORMANCE

1) Measuring range : 10-300 ppm 5-150 ppm 2.1-21 ppm Number of pump strokes 1/2(50mL) 1(100mL) 2(200mL)

2) Sampling time : 2 minutes/1 pump stroke

3) Detectable limit : 1 ppm(100mL)

4) Shelf life 2 years (Necessary to store in regrigerated conditions;  $0 \sim 10^{\circ}$ C)

5) Operating temperature :  $0 \sim 40^{\circ}$ C

6) Temperature compensation: Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading: Direct reading from the scale calibrated by 1 pump stroke

8) Colour change : Yellow→Red

## 2. RELATIVE STANDARD DEVIATION

RSD-low: 10% RSD-mid.: 10% RSD-high: 10%

### 3. CHEMICAL REACTION

By decomposing with an Oxidizer, Hydrogen chloride is produced and PH indicator is discoloured.  $Cl_2C=CCl_2+PbO_2+H_2SO_4 \rightarrow HCI$ 

# 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

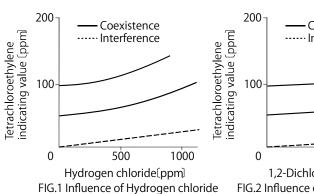
# 5. INTERFERENCE AND CROSS SENSITIVITY

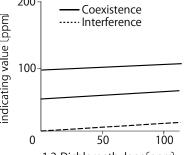
Substance		Interference	Coexistence
Chlorine		Pale red stain is produced.	Higher readings are given.
1,2-Dichloroethylene	FIG.2	Similar stain is produced.	//
Hydrogen chloride	FIG.1	//	//
Trichloroethylene		<i>''</i>	//
Vinyl chloride		//	"

## (NOTE)

In case of 1/2 pump strokes, following formula is available for the actual concentration. Actual concentration =  $2 \times$  Temperature corrected value

In case of 2 pump strokes, following formula is available for the actual concentration. Actual concentration =  $0.42 \times \text{Temperature}$  corrected value





1,2-Dichloroethylene(ppm)
FIG.2 Influence of 1,2-Dichloroethylene

#### TEMPERATURE CORRECTION TABLE

Tube	Corrected Concentration (ppm)					
Readings (ppm)	0℃ (32°F)	10 ℃ (50°F)	20℃ (68°F)	30℃ (86°F)	40℃ (104°F)	
150	-	172	150	138	134	
100	144	116	100	92	88	
50	70	56	50	46	44	
30	40	36	30	28	26	
20	22	21	20	19	18	
10	10	10	10	10	10	
5	5	5	5	5	5	