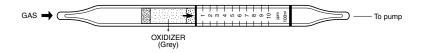
# **TETRACHLOROETHYLENE**



## 1. PERFORMANCE

1) Measuring range 1-10 ppm 0.2-2.0 ppm Number of pump strokes  $1(100\text{m}\,\ell)$  4  $(400\text{m}\,\ell)$  2) Sampling time 1.5 minutes/1 pump stroke

3) Detectable limit :  $0.1 \text{ ppm} (400 \text{m} \ell)$ 

4) Shelf life : 1 year (Necessary to store in a refrigerated place ;  $0 \sim 10 \, ^{\circ}\mathrm{C}$ )

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

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

8) Colour change : Pale orange → Blueish purple

## 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

By reacting with an Oxidizer, Hydrogen chloride is produced and PH indicator is discoloured. CI<sub>2</sub>C = CCI<sub>2</sub> + PbO<sub>2</sub> + H<sub>2</sub>SO<sub>4</sub> → HCI

### 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

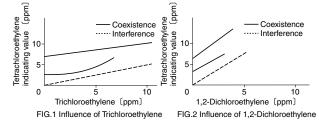
## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	ppm	Coexistence
Trichloroethylene	FIG.1	Similar stain is produced.	2	Higher readings are given.
1,2-Dichloroethylene	FIG.2	"	2	"
Hydrogen chloride		"	2	"
Vinyl chloride		"	40	"

#### (NOTE)

In case of 4 pump strokes, following formula is available for the actual concentration.

Actual concentration =  $1/5 \times$  Temperature corrected value



#### TEMPERATURE CORRECTION TABLE

Scale	True Concentration (ppm)						
Readings (ppm)	0°C (32°F)	10℃ (50°F)	20°C (68°F)	30°C (86°F)	40 ℃ (104 °F)		
10	12.5	11.3	10.0	9.4	8.7		
9	11.9	10.5	9.0	8.5	7.9		
8	9.4	8.7	8.0	7.5	7.0		
7	8.2	7.6	7.0	6.6	6.2		
6	7.0	6.5	6.0	5.6	5.2		
5	5.8	5.4	5.0	4.8	4.3		
4	4.6	4.3	4.0	3.8	3.5		
3	3.5	3.3	3.0	2.8	2.6		
2	2.3	2.2	2.0	1.9	1.7		
1	1.1	1.1	1.0	1.0	0.9		