# **TETRACHLOROETHYLENE**



## 1. PERFORMANCE

1) Measuring range : 10-300 ppm 5-150 ppm  $1/2(50 \text{m} \ell)$ 1(100ml) Number of pump strokes 2) Sampling time : 2 minutes/1 pump stroke

: 1 ppm  $(100 \text{m} \ell)$ 3) Detectable limit

4) Shelf life 2 years (Necessary to store in a refrigerated place :  $0 \sim 10^{\circ}$ C)

: 0 ~ 40 °C 5) Operating temperature

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.

 $CCI_2 = CCI_2 + PbO_2 + H_2SO_4 \rightarrow HCI$ 

### 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

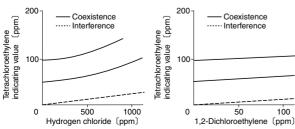
# 5. INTERFERENCE AND CROSS SENSITIVITY

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

#### (NOTE)

In case of 1/2 or 2 pump strokes, following formula is available for the actual concentration.

Actual concentration =  $2 \times$  Temperature corrected value



#### TEMPERATURE CORRECTION TABLE

	True Concentration (ppm)						
Readings (ppm)	0°C (32°F)	10 °C (50 °F)	20°C (68°F)	30°C (86°F)	40℃ (104°F)		
)	_	172	150	138	134		
)	144	116	100	92	88		
)	70	56	50	46	44		
)	40	36	30	28	26		
)	22	21	20	19	18		
) _	10	10	10	10	10		
		ngs 0°C (32*F) 0 — 0 144 0 70 0 40 0 22	ngs 0°C 10°C (50°F) 0 − 172 0 144 116 0 70 56 0 40 36 0 22 21	ngs 0°C 10°C 20°C (68°F) (68°F) (68°F) (00°F) (68°F) (00°F) (00°F	ngs   0°C   10°C   20°C   60°C   10°C   60°C   60°C		

FIG.1 Influence of Hydrogen chloride

FIG.2 Influence of 1,2-Dichloroethylene

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