# **CHLOROFORM**



### 1. PERFORMANCE

1) Measuring range : 70-500 ppm 35-250 ppm 23-167 ppm Number of pump strokes  $2(200 \text{m} \ell)$   $3(300 \text{m} \ell)$   $4(400 \text{m} \ell)$ 

2) Sampling time : 3 minutes/2 pump strokes

3) Detectable limit : 20 ppm  $(400 \text{m} \ell)$ 

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

5) Operating temperature :  $10 \sim 40 \,^{\circ}\text{C}$ 

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE") 7) Reading : Direct reading from the scale calibrated by 2 pump strokes

8) Colour change : White → Yellowish orange

#### 2. RELATIVE STANDARD DEVIATION

RSD-low: 20% RSD-mid.: 15% RSD-high: 15%

## 3. CHEMICAL REACTION

Chlorine is produced by an Oxidizer. By reacting between this Chlorine and o-Toluidine, yellow holoquinone is produced.

 $CHCl_3 + I_2O_5 + CrO_3 + H_2SO_4 \cdot nSO_3 \rightarrow Cl_2$ 

#### 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

# 5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	ppm	Coexistence	
Halogens		Similar stain is produced.		Higher readings are given.	
Halogenated hydrocarbons		"		"	
n-Hexane	FIG.2	The accuracy of readings is not affected.	200	Lower readings are given.	

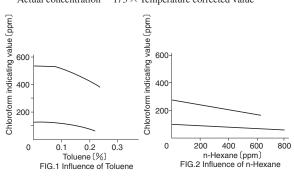
### (NOTE)

In case of 3 pump strokes, following formula is available for the actual concentration.

Actual concentration =  $1/2 \times$  Temperature corrected value

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

Actual concentration =  $1/3 \times$  Temperature corrected value



#### TEMPERATURE CORRECTION TABLE

Tube	Corrected Concentration (ppm)						
Readings (ppm)	10 °C (50 °F)	15 ℃ (59 °F)	20 ℃ (68 °F)	30 ℃ (95 °F)	40 °C (95 °F)		
500	_	_	500	335	260		
400	_	520	400	280	215		
300	590	390	300	215	165		
200	380	260	200	145	115		
100	180	130	100	80	65		
70	120	85	70	60	50		