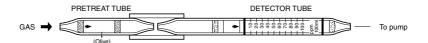
# 1,1,2-TRICHLOROETHANE



# 1. PERFORMANCE

1) Measuring range 10-100 ppmNumber of pump strokes  $1(100\text{m}\ell)$ 

2) Sampling time : 2 minutes/1 pump stroke

3) Detectable limit : 5 ppm

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

## 2. RELATIVE STANDARD DEVIATION

RSD-low: 15% RSD-mid.: 15% RSD-high: 10%

#### 3. CHEMICAL REACTION

Chlorine is produced by decomposing with an Oxidizer.

By reading between this Chlorine and 3, 3'-Dimethylnaphthidine, Nitroso-compound is produced.

 $CI_2CHCH_2CI + CrO_3 + H_2SO_4 \rightarrow CI_2$ 

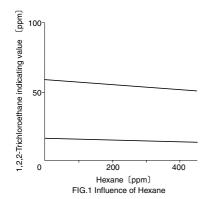
CI<sub>2</sub> + 3, 3'-Dimethylnaphthidine → Nitroso-compound

# 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence	
Nitrogen oxides	Similar stain is produced.		Higher readings are given.	
Halogens	"		"	
Halogenated hydrocarbons	"		"	
Hexane FIG.1		100	Lower readings are given.	



#### TEMPERATURE CORRECTION TABLE

Scale	True Concentration (ppm)						
Readings (ppm)	0°C (32°F)	10℃ (50°F)	20°C (68°F)	(86°F)	40°C (104°F)		
100	84	92	100	105	114		
90	73	82	90	96	105		
80	63	72	80	88	96		
70	53	61	70	78	86		
60	44	51	60	68	75		
50	35	42	50	58	64		
40	27	33	40	47	53		
30	20	25	30	36	42		
20	13	16	20	25	30		
10	6	8	10	14	18		