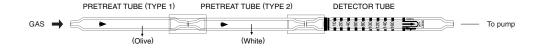
# 1,1-DICHLOROETHANE



## 1. PERFORMANCE

1) Measuring range 10-160 ppmNumber of pump strokes  $1(100\text{m}\ell)$ 

2) Sampling time : 2 minutes/1 pump stroke

3) Detectable limit : 3 ppm

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

5) Operating temperature  $0 \sim 40 \,^{\circ}$ C 6) Operating Humidity  $20-80 \,^{\circ}$  R.H.

7) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE") 8) Reading : Direct reading from the scale calibrated by 1 pump stroke

9) 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 reacting between this Chlorine and 3, 3'-Dimethylnaphthidine, Nitroso-compound is produced.

 $CH_3CHCI_2 + CrO_3 + H_2SO_4 \cdot nSO_3 \rightarrow CI_2$ 

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

# 4. CALIBRATION OF THE TUBE

DIFFUSION TUBE METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence	
Nitrogen oxides	Similar stain is produced.		Higher readings are given.	
Halogens	"		"	
Halogenated hydrocarbons	"		"	
Alcohols	The accuracy of readings is not affected.	400	Lower readings are given.	
Hexane	"	20	"	
Toluene	"	20	"	

#### TEMPERATURE CORRECTION TABLE

Tube	Corrected Concentration (ppm)					
Readings (ppm)	0 °C (32 °F)	10 °C (50 °F)	20°C (68°F)	30 °C (86 °F)	40 °C (104 °F)	
160	230	195	160	118	75	
140	200	170	140	105	70	
120	170	145	120	90	60	
100	140	120	100	75	50	
80	110	95	80	60	40	
60	80	70	60	48	35	
40	50	45	40	33	25	
20	25	23	20	18	15	
10	10	10	10	10	10	