TETRACHLOROETHYLENE



1. PERFORMANCE

: 50-500 ppm 125-1,250 ppm 1) Measuring range Number of pump strokes $1(100m\ell)$ $1/2(50 \text{m} \ell)$ 2) Sampling time : 45 seconds/1 pump stroke

3) Detectable limit $5 \text{ ppm} (100 \text{m} \ell)$

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

5) Operating temperature : 5 ~ 40 °C

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

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. $CI_2C = CCI_2 + PbO_2 + H_2SO_4 \rightarrow HCI$

4. CALIBRATION OF THE TUBE

DIFFUSION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Trichloroethylene	Similar stain is produced.	10	Higher readings are given.
1,2-Dichloroethylene	"	10	"
1,1,1-Trichloroetane		less than 300	The accuracy of readings is not affected.

(NOTE)

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

Actual concentration = $2.5 \times$ Reading value

TEMPERATURE CORRECTION TABLE

Temperature; To correct for temperature, multiply the tube reading by the following factors.

Temperature (℃)	1	2	3	4	5	6	7	8	9	10
Correction Factor	_	_	_	_	1.40	1.36	1.32	1.28	1.24	1.20
Temperature (℃)	11	12	13	14	15	16	17	18	19	20
Correction Factor	1.18	1.16	1.14	1.12	1.10	1.08	1.06	1.04	1.02	1.00
Temperature (℃)	21	22	23	24	25	26	27	28	29	30
Correction Factor	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90
Temperature (℃)	31	32	33	34	35	36	37	38	39	40
Correction Factor	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.82	0.81	0.80