METHYL IODIDE



1. PERFORMANCE

1) Measuring range : 0.4-8 ppm 1-20 ppm 2.5-50 ppm Number of pump strokes $2(200m\ell)$ $1(100m\ell)$ $1/2(50m\ell)$

2) Sampling time : 1.5 minutes/1 pump stroke

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

8) Colour change : White→Grey

2. RELATIVE STANDARD DEVIATION

RSD-low: 15% RSD-mid.: 10% RSD-high: 5%

3. CHEMICAL REACTION

Iodine pentoxide is reduced. $CH_3I + V_2O_5 + H_2SO_4 \rightarrow I_2$

4. CALIBRATION OF THE TUBE

DIFFUSION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Carbon dioxide	The accuracy of readings is not affected.	50%	The accuracy of readings is not affected.
Methyl bromide	"	1	"
Acetone	"	200	"
Hexane	"	200	"
Hydrogen sulphide		0.5	Higher readings are given.
1,3-Dichloropropene		0.1	"
Toluene			Lower readings are given.

(NOTE)

1) In case of 1/2 pump strokes, following formula is available for the actual concentration. Actual concentration $= 2.5 \times$ Temperature corrected value

2) In case of 2 pump strokes, following formula is available for the actual concentration. Actual concentration = $0.4 \times$ Temperature corrected value

TEMPERATURE CORRECTION TABLE

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

Pump stroke	Temperature (℃)	0	5	10	15	20	25	30	35	40			
1		1.55	1.32	1.15	1.00								
1/2	Coefficient	2.20	1.80	1.50	1.20	1.20 1.00							
2		1.30	1.22	1.15	1.00			1.15	1.22	1.30			