# 1, 4-DIOXANE



# 1. PERFORMANCE

1) Measuring range 20-500 ppmNumber of pump strokes  $1(100\text{m}\ell)$ 

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit : 5 ppm4) Shelf life : 2 years5) Operating temperature  $: 0 \sim 40 \,^{\circ}\text{C}$ 

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")

7) Reading

: Graduations printed on the tube are calibrated by Methyl alcohol at 1 pump stroke and 1,4-Dioxane concentration is determined by using a conversion chart.

8) Colour change : Orange → Pale blue

# 2. RELATIVE STANDARD DEVIATION

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

# 3. CHEMICAL REACTION

Pottassium dichromate is reduced.

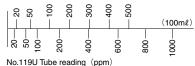
#### 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

#### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence					
Alcohols		Similar stain is produced.		Higher readings are given.					
Toluene	200	Whole reagent is changed to Brown.	500	The top of discoloured layer becomes unclear.					
Hexane				The accuracy of readings is not affected.					
Ethyl acetate		"	"	"					
Trichloroethylene		"	"	"					

#### 1,4-Dioxane concentration (ppm)



TEMPERATURE CORRECTION TABLE

Scale	True Concentration (%)					
Readings (%)	0°C (32°F)	10 ℃ (50* F)	20°C (68°F)	30°C (86°F)	40 ℃ (104 ° F)	
500	700	600	500	470	440	
400	480	440	400	370	350	
300	370	330	300	280	260	
200	250	220	200	190	170	
100	130	110	100	90	85	
50	65	60	50	45	40	
20	25	23	20	18	15	