1, 4-DIOXANE



1. PERFORMANCE

1) Measuring range 0.05-2.5 % Number of pump strokes $2(200 \text{m} \ell)$

2) Sampling time : 3 minutes/2 pump strokes

3) Detectable limit \therefore 10 ppm 4) Shelf life \therefore 3 years 5) Operating temperature \therefore 0 \sim 40 $^{\circ}$ C

6) Reading : Graduations printed on the tube are calibrated by Methyl ethyl ketone at 2 pump

strokes and 1,4-Dioxane concentration is determined by using a conversion chart.

7) Colour change : Orange→Brownish green

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Potassium dichromate is reduced.

$$O < CH_2CH_2 > O + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Acetylene		3%	Whole reagent is discoloured to Brown.
Propane		0.2%	"
Other organic or vapours except Halogenated hydrocarbons	Similar stain is produced.		Higher reading are given.

