1,2,4-TRIMETHYL BENZENE



1. PERFORMANCE

1) Measuring range 20-250 ppmNumber of pump strokes $1 (100 \text{m} \ell)$

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit \therefore 1 ppm 4) Shelf life \therefore 2 years 5) Operating temperature \therefore 0 \sim 40 $^{\circ}$ C

6) Reading : Graduations printed on the tube are calibrated by Ethyl acetate at 1 pump stroke

and 1,2,4-trimethyl benzene is determined by using a conversion chart.

7) Colour change : Yellow→Dark brown

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

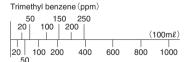
Chromium oxide is reduced. C_6H_3 (CH_3)₃ + Cr^{6+} + $H_2SO_4 \rightarrow Cr^{3+}$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	Coexistence
Alcohols	Brown stain is produced.	Higher readings are given.
Esters	"	"
Ketones	"	"
Aromatic hydrocarbons	"	"
Aliphatic hydrocarbons (more than C ₃)		Double-layer stain is produced. If the dark brown stain is clear, the readings can be obtained by it.
Halogenated hydrocarbons		"



No. 111U Tube reading (ppm)