PROPYL ACETATE



1. PERFORMANCE

1) Measuring range 20-1,000 ppmNumber of pump strokes $1(100\text{m}\ell)$

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit : 10 ppm 4) Shelf life : 2 years 5) Operating temperature : $10 \sim 40 \, ^{\circ}$ C

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

7) Colour change : Yellow→Brown

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Chromium oxide is reduced.

 $CH_3CO_2 (CH_2)_2CH_3 + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | Interference | Coexistence | |
|---|---|---|--|
| Alcohols | Similar stains or Blue stains are produced. | Higher readings are given. | |
| Esters | " | " | |
| Ketones | " | " | |
| Aromatic hydrocarbons | " | " | |
| Aliphatic hydrocarbons (over C ₃) | | Whole reagent is changed to Pale brown, but if the maximum end point of stained layer is discernable, the accuracy of readings is not affected. | |
| Halogenated hydrocarbons | | " | |

TEMPERATURE CORRECTION TABLE

| Tube | Corrected Concentration (ppm) | | | | |
|-------------------|-------------------------------|----------------|-----------------|------------------|--|
| Readings (ppm) | 10 ℃ (50 °F) | 20 ℃ (68*F) | 30 ℃ (86 °F) | 40 ℃ (104 °F) | |
| 1000 | _ | 1000 | 480 | 320 | |
| 800 | _ | 800 | 420 | 280 | |
| 600 | 1450 | 600 | 340 | 240 | |
| 400 | 850 | 400 | 240 | 160 | |
| 200 | 380 | 200 | 120 | 80 | |
| 100 | 200 | 100 | 60 | 40 | |
| 50 | 100 | 50 | 30 | 20 | |
| 20 | 45 | 20 | 10 | 6 | |