



## **1. PERFORMANCE**

| 1) Measuring range       | : 20-300 ppm   |
|--------------------------|--|
| Number of pump strokes   | $1(100 \mathrm{m}\ell)$  |
| 2) Sampling time         | : 1 minute/1 pump stroke   |
| 3) Detectable limit      | : -  |
| 4) Shelf life            | : 3 years  |
| 5) Operating temperature | $: 15 \sim 25 $ °C   |
| 6) Reading               | : The tube scale is calibrated based on Styrene at 1 pump stroke and<br><i>a</i> -Pinene concentration is determined by using a conversion chart<br>at 1 pump stroke |
| 7) Colour change         | : White→Yellow   |

# 2. RELATIVE STANDARD DEVIATION

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

### **3. CHEMICAL REACTION**

A polymer of  $\alpha$ -Pinene is produced by Sulphuric acid.

#### 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

# 5. INTERFERENCE AND CROSS SENSITIVITY

| Substance      | Interference   | ppm    | Coexistence   |
|----------------|--|--------|---|
| Acrylonitrile  | The accuracy of readings is not affected.                | 400    | Lower readings are given.   |
| Butadiene      | Similar stain is produced and higher readings are given. | 5      | Uneven discolouration is produced and higher readings are given.  |
| Formaldehyde   | "  | 15     | Yellowish orange stain is produced and higher readings are given. |
| Acetaldehyde   | "  | 350    | Similar stain is produced and higher readings are given.          |
| Methyl alcohol | The accuracy of readings is not affected.                | 0.35 % | Pale discolouration is produced and higher readings are given.    |
| Ethyl alcohol  | "  | 0.18%  | "   |
| Ethyl acetate  | "  | 700    | "   |
| Butyl acetate  | //   | 700    | //  |

α-Pinene concentration (ppm)

