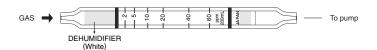
# **ISOBUTYL ACRYLATE**



#### 1. PERFORMANCE

1) Measuring range 5-60 ppmNumber of pump strokes  $2(200\text{m}\ell)$ 

2) Sampling time : 3 minutes/2 pump strokes

3) Detectable limit : 0.5 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 acrylate at 2 pump strokes and Isobutyl acrylate concentration is determined by using a conversion chart.

8) Colour change : Yellow→Pale blue

#### 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

Chromium oxide is reduced.

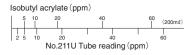
 $CH_2 = CHCO_2CH_2CH(CH_3)_2 + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$ 

## 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

## 5. INTERFERENCE AND CROSS SENSITIVITY

| Substance  | Interference                              | Coexistence                |  |
|--|---|----------------------------|--|
| Alcohols   | Similar stain is produced.                | Higher readings are given. |  |
| Esters   | Whole reagent is discolured to Dark brown | "                          |  |
| Aromatic hydrocarbons                              | "   | "                          |  |
| Aliphatic hydrocarbons (more than C <sub>3</sub> ) | "   | "                          |  |
| Halogenated hydrocarbons                           | "   | "                          |  |



#### TEMPERATURE CORRECTION TABLE

| Conversion     | n Corrected Concentration (ppm) |                  |                  |                  |                   |  |
|----------------|---------------------------------|------------------|------------------|------------------|-------------------|--|
| Value<br>(ppm) | 0 °C<br>(32 °F)                 | 10 °C<br>(50 °F) | 20 °C<br>(68 °F) | 30 °C<br>(86 °F) | 40 °C<br>(104 °F) |  |
| 60             | _                               | 90               | 60               | 48               | 40                |  |
| 40             | 115                             | 57               | 40               | 32               | 27                |  |
| 20             | 50                              | 27               | 20               | 16               | 14                |  |
| 10             | 20                              | 13               | 10               | 8                | 6                 |  |
| 5              | 10                              | 6                | 5                | 4                | 3                 |  |