Tube No.
# 211U BUTYL ACRYLATE


## 1. PERFORMANCE

| | |
|---|---|
| 1) Measuring range | : 5-60 ppm |
| Number of pump strokes | 2(200mℓ) |
| 2) Sampling time | : 3 minutes/2 pump strokes |
| 3) Detectable limit | : 0.5 ppm |
| 4) Shelf life | : 2 years |
| 5) Operating temperature | : 0～40℃ |
| 6) Temperature compensation | : Necessary (See "TEMPERATURE CORRECTION TABLE") |
| 7) Reading | : Direct reading from the scale calibrated by 2 pump strokes |
| 8) Colour change | : Yellow→Pale blue |

## 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

Chromium oxide is reduced.

$$CH_2=CHCO_2(CH_2)_3CH_3 + Cr^{6+} H_2SO_4 \rightarrow Cr^{3+}$$

## 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

## 5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | Interference | Coexistence |
|---|---|---|
| Alcohols | Similar stain is produced. | Higher readings are given. |
| Paraffin hydrocarbons (more than $C_3$) FIG.2 | Whole reagent is changed to Dark brown. | 〃 |
| Halogenated hydrocarbons | 〃 | 〃 |
| Esters | 〃 | 〃 |
| Aromatic hydrocarbons FIG.1 | 〃 | 〃 |

(NOTE)

Butyl acrylate have the same sensitivity at 20℃ to Methyl acrylate.

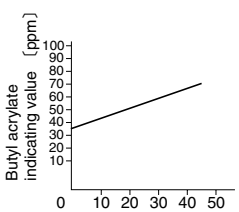

FIG.1 Influence of Toluene

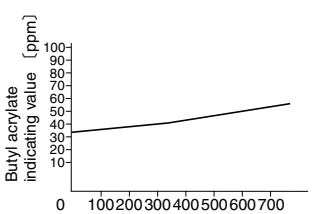

FIG.2 Influence of Hexane

TEMPERATURE CORRECTION TABLE

| Scale Readings (ppm) | True Concentration (ppm) | | | | |
|---|---|---|---|---|---|
| | 0℃ (32°F) | 10℃ (50°F) | 20℃ (68°F) | 30℃ (86°F) | 40℃ (104°F) |
| 60 | 105 | 80 | 60 | 45 | 32 |
| 40 | 68 | 54 | 40 | 30 | 22 |
| 20 | 32 | 26 | 20 | 15 | 11 |
| 10 | 15 | 13 | 10 | 8 | 5 |
| 5 | 8 | 7 | 5 | 4 | 3 |