

## 1. PERFORMANCE

- 1) Measuring range : 10-250 ppm  
Number of pump strokes : 3 (300ml)
- 2) Sampling time : 4.5 minutes/3 pump strokes
- 3) Detectable limit : 1 ppm
- 4) Shelf life : 2 years
- 5) Operating temperature : 10 ~ 40 °C
- 6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
- 7) Reading : Graduations printed on the tube are calibrated by Ethyl cellosolve at 3 pump strokes and Diacetone alcohol concentration is determined by using a conversion chart.
- 8) Colour change : Yellow → Pale blue

## 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

Chromium oxide is reduced.



## 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

## 5. INTERFERENCE AND CROSS SENSITIVITY

| Substance                | Interference                                | Coexistence   |
|--------------------------|---|---|
| Alcohols FIG.1           | Similar stain is produced.                  | Higher readings are given.  |
| Halogenated hydrocarbons | ∕   |   |
| Aliphatic hydrocarbons   | Whole reagent is discoloured to Pale brown. | If the top of Pale blue stain is clear, the accuracy of readings is not affected. |
| Aromatic hydrocarbons    | ∕   | ∕   |
| Esters                   | ∕   | ∕   |

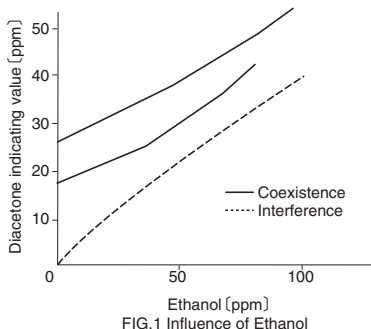


FIG.1 Influence of Ethanol

## TEMPERATURE CORRECTION TABLE

| Conver. value (ppm) | Corrected Concentration (ppm) |               |               |               |               |               |                |
|---------------------|-------------------------------|---------------|---------------|---------------|---------------|---------------|----------------|
|                     | 10 °C (50 °F)                 | 15 °C (59 °F) | 20 °C (68 °F) | 25 °C (77 °F) | 30 °C (86 °F) | 35 °C (95 °F) | 40 °C (104 °F) |
| 250                 | —                             | 380           | 250           | 170           | 130           | 90            | 70             |
| 200                 | 440                           | 300           | 200           | 140           | 100           | 80            | 60             |
| 150                 | 330                           | 210           | 150           | 110           | 80            | 60            | 50             |
| 100                 | 200                           | 130           | 100           | 80            | 60            | 40            | 30             |
| 50                  | 80                            | 60            | 50            | 40            | 30            | 20            | 16             |
| 30                  | 50                            | 40            | 30            | 23            | 18            | 12            | 8              |
| 10                  | 16                            | 14            | 10            | 8             | 6             | 4             | 3              |

Diacetone alcohol (ppm)



No.190U Tube reading (ppm)