

## 1. PERFORMANCE

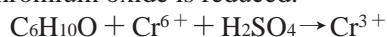
- 1) Measuring range : 2-100 ppm
- Number of pump strokes : 3 (300ml)
- 2) Sampling time : 4.5 minutes/3 pump strokes
- 3) Detectable limit : 1 ppm
- 4) Shelf life : 3 years
- 5) Operating temperature : 0 ~ 40 °C
- 6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
- 7) Reading : Direct reading from the scale calibrated by 3 pump strokes
- 8) Colour change : Yellow → Pale blue

## 2. RELATIVE STANDARD DEVIATION

RSD-low : 10 % RSD-mid. : 10 % 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  |
|---|---|--|
| Aliphatic hydrocarbons<br>(more than C <sub>3</sub> ) | Whole reagent is changed to pale brown.   | The accuracy of readings is not affected if the maximum end point of the pale blue stain is discernable. |
| Aromatic hydrocarbons                                 | ∕   | ∕  |
| Halogenated hydrocarbons                              | ∕   | ∕  |
| Alcohols  | FIG.1   | Higher readings are given.   |
| Esters  | Pale brown stain is produced from the zero end of the detecting reagent (inlet side of the tube). | The accuracy of readings is not affected.  |

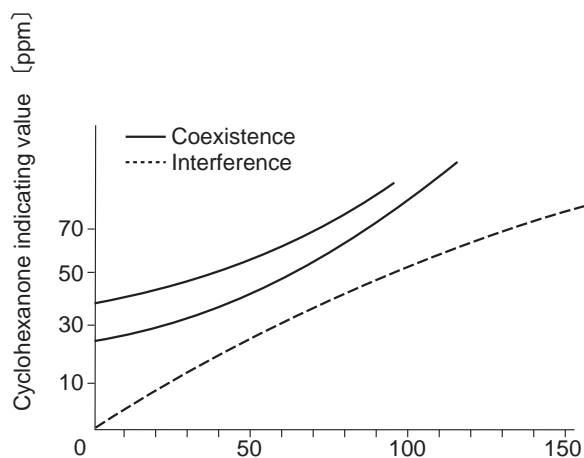


FIG.1 Influence of Ethanol

TEMPERATURE CORRECTION TABLE

| Tube Readings (ppm) | Corrected Concentration (ppm) |               |               |               |                |
|---------------------|-------------------------------|---------------|---------------|---------------|----------------|
|                     | 0 °C (32 °F)                  | 10 °C (50 °F) | 20 °C (68 °F) | 30 °C (86 °F) | 40 °C (104 °F) |
| 100                 | —                             | —             | 100           | 75            | 60             |
| 80                  | —                             | 120           | 80            | 62            | 50             |
| 60                  | 110                           | 84            | 60            | 46            | 37             |
| 40                  | 70                            | 52            | 40            | 30            | 25             |
| 20                  | 30                            | 26            | 20            | 16            | 13             |
| 10                  | 18                            | 14            | 10            | 8             | 7              |
| 2                   | 4                             | 3             | 2             | 2             | 1              |