# 1,3-BUTADIENE



# 1. PERFORMANCE

 $\begin{array}{cccc} \text{1) Measuring range} & \text{1.5-100 ppm} & 2.5-50 \text{ ppm} \\ \text{Number of pump strokes} & 1.(100\text{m}\,\ell) & 2.(200\text{m}\,\ell) \\ \text{2) Sampling time} & \text{1.5 minutes/1 pump stroke} \end{array}$ 

3) Detectable limit ∴ 0.5 ppm (200mℓ) 4) Shelf life ∴ 1 year

5) Operating temperature  $0 \sim 40^{\circ}$ C

6) Reading : Direct reading from the scale calibrated by 1 pump stroke

7) Colour change : Pale yellow→Pale blue

## 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

Chromium oxide is reduced.

 $CH_2 = CHCH = CH_2 + Cr^6 + H_2SO_4 \rightarrow Cr^{3+}$ 

### 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

#### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	Coexistence
Esters	Similar stain is produced.	Higher readings are given.
Alcohols	"	"
Ketones	"	"
Aromatic hydrocarbons (more than C <sub>3</sub> )	Whole reagent is changed to Pale brown.	"

#### (NOTE)

In case of 2 strokes, following formula is available for the actual concentration.

Actual concentration =  $1/2 \times \text{Reading value}$ .