ETHYL 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 Ethyl acrylate concentration is determined by using a conversion chart.

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.

 $CH_2 = CHCO_2CH_2CH_3 + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	Coexistence	
Alcohols	Similar stain is produced.	Higher reading are given.	
Aliphatic hydrocarbons (more than C ₃)	Whole reagent is discoloured to Dark brown.	"	
Halogenated hydrocarbons	"	"	
Esters	"	"	
Aromatic hydrocarbons	"	"	

TEMPERATURE CORRECTION TABLE

Tube	Corrected Concentration (ppm)					
adings ppm)	0°C (32°F)	10 ℃ (50 °F)	20 °C (68 °F)	30 °C (86 °F)	40 ℃ (104 °F)	
60	80	70	60	52	44	
40	52	46	40	34	28	
20	27	23	20	17	15	
10	14	12	10	9	7	
5	7	6	5	4	3	

