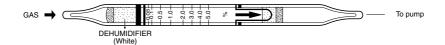
ETHYL ALCOHOL (ETHANOL)



1. PERFORMANCE

1) Measuring range 0.05-5.0%Number of pump strokes $1(100\text{m}\ell)$

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit : 100 ppm4) Shelf life : 3 years5) Operating temperature $: 0 \sim 40 \text{ °C}$

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE") 7) Reading : Direct reading from the scale calibrated by 1 pump stroke

8) Colour change : Yellowish orange → Pale green (The top of discoloured lauer is Brown, but read

at the top Pale green.)

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Chromium oxide is reduced. $C_2H_5OH + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	Coexistence	
Paraffin hydrocarbons (over C ₃)	Similar stain is produced.	Higher reading are given.	
Alcohols	"	"	
Esters	"	"	
Ketones	"	"	
Aromatic hydrocarbons	"	"	
Halogenated hydrocarbons	Pale brown stain is produced.	If the top of discolouration by Ethanol can be obtained, the accuracy of readings is not affected.	

TEMPERATURE CORRECTION TABLE

Scale	True Concentration (%)					
Readings (%)	0°C (32°F)	10 °C (50 °F)	20°C (68°F)	30°C (86°F)	40℃ (104°F)	
5.0	_	-	5.0	3.9	3.2	
4.0	_	-	4.0	3.2	2.6	
3.0	_	-	3.0	2.4	2.0	
2.0	_	-	2.0	1.6	1.3	
1.0	_	1.9	1.0	0.8	0.7	
0.5	_	0.8	0.5	0.4	0.3	
0.3	0.9	0.4	0.3	0.3	0.2	
0.1	0.1	0.1	0.1	0.1	0.1	