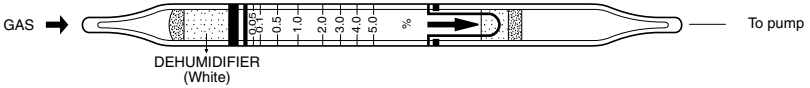
Tube No.
104SA

ETHYL ALCOHOL (ETHANOL)



1. PERFORMANCE

1) Measuring range : 0.05-5.0 %
   Number of pump strokes 1 (100mℓ)
2) Sampling time : 1.5 minutes/1 pump stroke
3) Detectable limit : 100 ppm
4) Shelf life : 3 years
5) Operating temperature : 0 ~ 40 ℃
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 Readings (%)	True Concentration (%)				
	0℃ (32°F)	10℃ (50°F)	20℃ (68°F)	30℃ (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