FORMIC ACID



1. PERFORMANCE

1) Measuring range : 1-50 ppm Number of pump strokes 1(100mL)

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit : 0.2 ppm(100mL) 4) Shelf life : 3 years 5) Operating temperature : 0~40°C

6) Temperature compensation : Necessary (0 \sim 20 °C) (See "TEMPERATURE CORRECTION TABLE")

7) Reading : The tube scale is calibrated based on Acetic acid at 1 pump stroke and

the tube has the same sensitivity for Formic acid

8) Colour change : Pale pink→Yellow

2. RELATIVE STANDARD DEVIATION

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

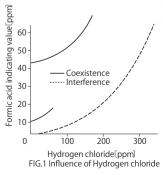
3. CHEMICAL REACTION

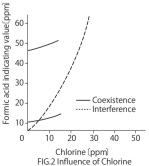
By reacting with alkali, PH indicator is discoloured. HCOOH + NaOH→HCOONa + H₂O

4. CALIBRATION OF THE TUBE DIFFUSION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance ppr		Interference	ppm	Coexistence
Sulphur dioxide		Similar stain is produced.	HCO_2H conc. $\times 1/20$	Higher readings are given.
Nitrogen dioxide	300	"	10	The top of discoloured layer becomes unclear.
Hydrogen chloride FIG.1		Pink stain is produced.	HCO₂Hconc. × 2	Higher readings are given.
Chlorine FIG.2		Yellow stain is produced.	5	//
Acetic acid		Similar stain is produced.		//





TEMPERATURE CORRECTION TABLE

Tube	Corrected Concentration (ppm)				
Readings (ppm)	0℃ (32℉)	10 °C (50 °F)	20∼40°C (68°F)		
50	82	60	50		
40	57	45	40		
30	36	32	30		
20	22	21	20		
10	10	10	10		