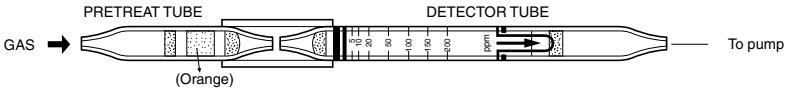
Tube No.
118SB

BENZENE



1. PERFORMANCE

1) Measuring range : 5-200 ppm
   Number of pump strokes 1 (100mℓ)
2) Sampling time : 3 minutes/1 pump stroke
3) Detectable limit : 3 ppm
4) Shelf life : 2 years
5) Operating temperature : 10 ~ 40 ℃
6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 1 pump stroke
8) Colour change : White → Greenish brown

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Iodine pentoxide is reduced.

$$C_6H_6 + I_2O_5 + H_2SO_4 \rightarrow I_2$$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence
Toluene FIG.1	20	Yellowish brown stain is produced.	less than 150	The accuracy of readings is not affected.
Xylene FIG.2	60	〃	less than 300	〃
Hexane	200	Whole reagent is discoloured to Dark grey.	800	Whole reagent is discoloured to Dark grey and higher readings are given.

(NOTE)

Aromatic hydrocarbons except Benzene is eliminated.

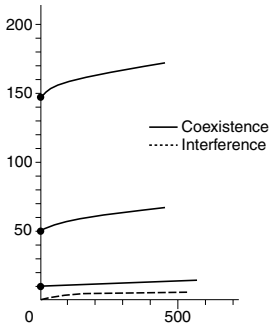


FIG.1 Influence of Toluene

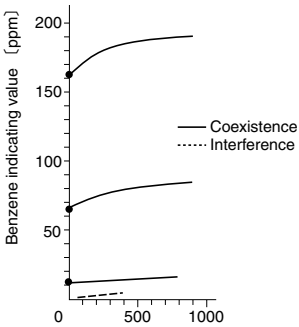


FIG.2 Influence of Xylene

TEMPERATURE CORRECTION TABLE

Scale Readings (ppm)	True Concentration (ppm)			
	10 ℃ (50 ˚ F)	20 ℃ (68 ˚ F)	30 ℃ (86 ˚ F)	40 ℃ (104 ˚ F)
200	—	200	170	160
150	200	150	130	120
100	126	100	90	83
50	60	50	45	40
20	25	20	18	15
10	13	10	9	8
5	6	5	4.5	4