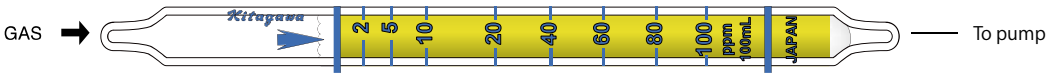
Tube No.
112SB

HYDROGEN CYANIDE



1. PERFORMANCE

1) Measuring range : 4.6-230 ppm 2-100 ppm 0.5-25 ppm
Number of pump strokes 1/2(50mL) 1(100mL) 4(400mL)
2) Sampling time : 1 minute / 1 pump stroke
3) Detectable limit : 0.2 ppm(400mL)
4) Shelf life : 2 years (Neccessary to store in refrigerated conditions; 0～10℃)
5) Operating temperature : 0～40℃ (Temperature correction is necessary for 1/2 pump strokes)
6) Operating humidity : 10～90%R.H. (Humidity correction is necessary for 1 and 4 pump strokes)
7) Reading : Direct reading from the scale calibrated by 1 pump stroke
8) Colour change : Yellow→Red

2. RELATIVE STANDARD DEVIATION

RSD-low：10% RSD-mid.：5% RSD-high：5%

3. CHEMICAL REACTION

By reacting with Mercury chloride, Hydrogen chloride is liberated and pH indicator is discoloured.

$2HCN + HgCl_2 \rightarrow 2HCl + Hg(CN)_2$

4. CALIBRATION OF THE TUBE

ABSORPTIOMETRIC METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Sulphur dioxide	Similar stain is produced.	1	Higher readings are given.
Phosphine	〃	1	〃
Hydrogen sulphide FIG.1	〃	3	〃
Ammonia	The accuracy of readings is not affected.	5	Lower readings are given.

(NOTE)

In case of 1/2 and 4 pump strokes, following formula is available for the actual concentration.

1/2 pump strokes : Actual concentration = Corrected value by correction table below

4 pump strokes : Actual concentration = Humidity corrected value × 0.25

CORRECTION TABLE FOR 50mL

Tube Readings (ppm)	Corrected Concentration (ppm)				
	0℃ (32℉)	5 ℃ (41℉)	10℃ (50℉)	15℃ (59℉)	20～40 ℃ (68～104°F)
100	—	—	—	—	230
80	—	—	220	202	184
60	186	171	156	147	138
40	106	99	92	92	92
20	46	46	46	46	46
10	23	23	23	23	23
5	11.5	11.5	11.5	11.5	11.5
2	4.6	4.6	4.6	4.6	4.6

HUMIDITY CORRECTION TABLE FOR 100mL and 400mL

Tube Readings (ppm)	Corrected Concentration (ppm)				
	10%R.H.	30%R.H.	50%R.H.	70%R.H.	90%R.H.
100	91.0	95.0	100.0	105.0	111.0
80	73.0	76.0	80.0	84.0	88.5
60	54.5	57.0	60.0	63.0	66.0
40	36.0	38.0	40.0	42.0	44.5
20	18.0	19.0	20.0	21.0	22.5
10	8.4	9.2	10.0	10.8	11.6
5	4.2	4.6	5.0	5.4	5.8
2	2.0	2.0	2.0	2.0	2.0

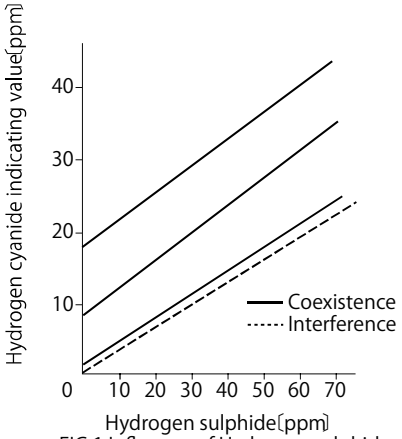


FIG.1 Influence of Hydrogen sulphide