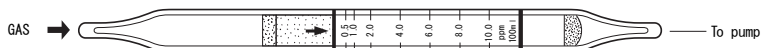


Tube No.
121SD

PHOSPHINE



1. PERFORMANCE

- 1) Measuring range : 0.5–10.0 ppm 0.25–5.0 ppm 1–20 ppm
 Number of pump strokes : 1(100mL) 2(200mL) 1/2(50mL)
- 2) Sampling time : 1 minute/1 pump stroke
- 3) Detectable limit : 0.1 ppm(200mL)
- 4) Shelf life : 1 year
- 5) Operating temperature : 0~40°C
- 6) Reading : Direct reading from the scale calibrated by 1 pump stroke
- 7) Colour change : Yellow → Pink

2. RELATIVE STANDARD DEVIATION

RSD-low : 15% RSD-mid. : 10% RSD-high : 5%

3. CHEMICAL REACTION

By reacting with Mercuric chloride (II), Hydrogen chloride is produced and PH indicator is discoloured.

$$\text{PH}_3 + 3\text{HgCl}_2 \rightarrow \text{P}(\text{HgCl})_3 + 3\text{HCl}$$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence
Ammonia		20	A stained layer at the side of gas inlet is bleached out and lower readings are given.
Hydrogen sulphide	Similar stain is produced		Higher readings are given.
Mercaptans	"		"

(NOTE)

When the concentration is below 0.5ppm, 2 pump strokes can be used to determine the lower concentration with the following equation:

Actual concentration = $1/2 \times$ Reading value

When the concentration is over 10.0ppm, a 1/2 pump stroke can be used to determine the higher concentration with the following equation:

Actual concentration = $2 \times$ Reading value