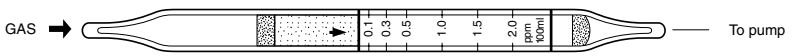
Tube No.
121U

ARSINE



1. PERFORMANCE

1) Measuring range	: 0.1-2.0 ppm	0.05-0.5 ppm
Number of pump strokes	1 (100mℓ)	2 (200mℓ)
2) Sampling time	: 1 minute/1 pump stroke	
3) Detectable limit	: 0.02 ppm (200mℓ)	
4) Shelf life	: 2 years	
5) Operating temperature	: 0 ~ 40 ℃	
6) Reading	: Although the scale of this tube is calibrated based on Phosphine at 1 pump stroke, the sensitivity of Arsine is completely same.	
7) Colour change	: Pale yellow → Pink	

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

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

$AsH_3 + HgCl_2 \rightarrow As(HgCl)_3 + HCl$

4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	Coexistence
Hydrogen selenide	Similar stain is produced.	Higher readings are given.
Mercaptans	〃	〃
Hydrogen sulphide	〃	〃
Hydrogen cyanide	Whole reagent is changed to Red.	〃
Sulphur dioxide	Whole reagent is changed toPale red, but Purplish red stainindicates Arsine concentration.	〃

(NOTE)

This tube scale is calibrated based on Phosphine and the same scale is available for Arsine.
When the concentration is below 0.5 ppm , 2 pump strokes can be used to detemine the lower concentration.
Following formula is available for the actual concentration.
Actual concentration = 1/2 × Reading value