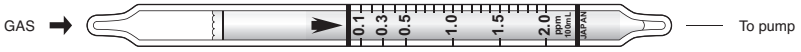
Tube No.
121U

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	: The tube scale is calibrated based on Phosphine at 1 pump stroke and the tube has the same sensitivity for Arsine.	
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 to Pale red, but Purplish red stain indicates Arsine concentration.

(NOTE)

When the concentration is below 0.5 ppm, 2 pump strokes can be used to detemine the lower concentration with the following formula ;

Actual concentration = 1/2 × Reading value