

# GASTEC Instructions for No.17D Hydrogen Fluoride Passive Dosi-Tube

## FOR SAFE OPERATION :

Read this manual carefully before use.

**⚠ CAUTION :** If not observed, injuries to the operator or damage to the product may result.

1. When breaking the Passive Dosi-tube, keep away from eyes.
2. Do not touch the broken glass tubes, pieces and reagent with bare hand(s).

**△ NOTES :** For maintaining performance and reliability of the test result

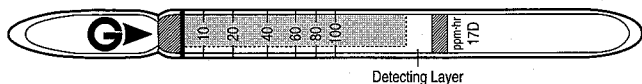
1. Use this tube within the temperature range of 0 - 40°C (32 - 104°F).
2. Use this tube within the relative humidity range of 30 - 80%.
3. This tube may be interfered by the coexisting gases. Please refer to the "INTERFERENCES".
4. Shelf life and storage conditions of the Passive dosi-tube are marked on the label of the box of tube.

## APPLICATION OF THE TUBE :

Use this tube for the detection of Hydrogen Fluoride in air or the industrial areas and environmental atmospheric condition.

## SPECIFICATION :

(As a result of Gastec's commitment to continued improvement, specifications are subject to change without notice.)



Measuring Range	1 - 100 ppm
Sampling Hours	1 - 10 hours
Detecting Limit	0.5 ppm (10 hours)
Color Change	Yellow → Purple
Reaction Principle	Hydrogen fluoride changes the indicator to purple. HF + Indicator → Reaction product

**\*\* Shelf Life :** Please refer to the Validity Date printed on the box of tube.

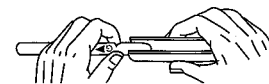
**\*\* Store the tubes in dark and cool place.**

## CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :

Tube 17D is calibrated by the temperature of 20°C and 50% relative humidity and normal atmospheric. To correct for temperature and humidity apply the following table:

Temperature °C (°F)	0(32)	10(50)	20(68)	30(86)	40(104)
Relative Humidity					
30%	1.3	0.8	0.5	0.4	0.3
40%	1.7	1.1	0.7	0.5	0.4
50%	2.3	1.5	1.0	0.7	0.5
60%	-	2.0	1.4	1.0	0.7
70%	-	-	1.9	1.4	1.0
80%	-	-	2.5	1.9	1.3

## MEASUREMENT PROCEDURE :



1. Break the tube at the score of the tube with Gastec Passive Dosi-Tube Holder No.710.
2. Set the Dosi-tube in the Tube Holder firmly inside the holder so the broken part is not appeared from the edge of the holder. Record the measurement starting time on the peel off numbered label in each box of the tube and put the label on the tube.
3. For personal sampling, put the dosi-tube holder to the shirt collar of the personnel or workplace where the measurement is required. When the sampling is finished, record the time on the label of the tube.
4. Average gas concentration can be obtained from an hour sampling. 4 - 10 hours sampling term is recommended. Calculate actual sampling time and obtain the average gas concentration by the following formula :

$$\text{Average Concentration} = \frac{\text{Dosi - Tube Reading (ppm} \cdot \text{hour)}}{\text{Actual Sampling Time (hour)}}$$

5. To protect the tube holder of shirt collar from dropping during operation, support the tube holder with string through a small hole of the tube holder.

## INTERFERENCES :

Substance	Concentration	Interference	Change color by itself
Hydrogen chloride, Nitric acid	1/5 time or higher	Plus error	Produce purple stain
Chlorine	1/5 time or higher	Plus error	Chlorine bleaches around zero zone

## DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Ceiling (TLV-C) by ACGIH (1998) : 3 ppm (15minutes)

## DISPOSAL INSTRUCTION :

Reagent of the tube does not use toxic substances. On disposing the tube regardless of whether used or unused, follow the rules and regulations of the local government.

## WARRANTY :

If you have any questions regarding gas detection and quality of the tubes, please feel free to contact your Gastec representatives.