

# GASTEC Instructions for No.12D Hydrogen Cyanide Passive Dosi-Tube

## FOR SAFE OPERATION :

Carefully read this manual 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 the tube away from eyes.
2. Do not touch any broken glass tubes, pieces and reagents with bare hand(s).

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

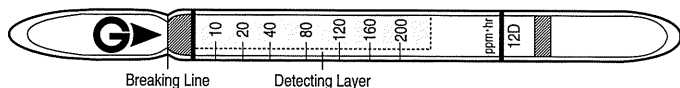
1. Use this tube within the temperature range of 0 - 40°C (32 - 104°F).
2. Use this tube within the relative humidity range of 0 - 90%.
3. This tube may be interfered with by coexisting gases. Please refer to the "INTERFERENCES".
4. The shelf life and storage condition of the Passive Dosi-tube are marked on the label of the tube box.

## APPLICATION OF THE TUBE :

Use this tube for detecting Hydrogen cyanide in the 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.)



This tube measures TWA (time-weighted average) gas concentration by utilizing natural diffusion of the target gas without a gas sampling pump.

Measuring Range	1 – 200 ppm
Sampling Hours	1 – 10 hours
Detecting Limit	0.3 ppm (10 hours)
Colour Change	Yellow → Pink
Reaction Principle	Hydrogen cyanide reacts with the reagent to form intermediate material which stains indicator pink

**Coefficient of Variation: 10% (for 10 to 40 ppm-hr), 5% (for 40 to 200 ppm-hr)**

**\*\*Shelf Life: Please refer to the validity date printed on the tube box.**

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

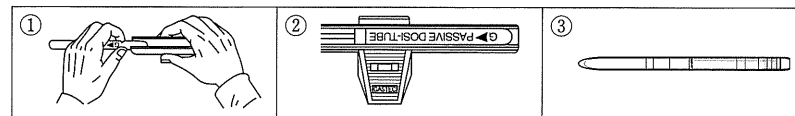
## CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :

**Temperature :** No correction is required.

**Humidity :** No correction is required.

**Pressure :** No correction is required.

## MEASUREMENT PROCEDURE:



1. Break a Dosi-tube at the breaking line of the tube by the optional Passive Dosi-Tube Holder No.710.
2. Set the Dosi-tube into the tube holder firmly so the broken tip doesn't appear from the edge of the tube holder. Record the measurement starting time on a peel-off numbered label supplied with each box of the tubes and put the label on the Dosi-tube in the tube holder.
3. Clip the tube holder to the clothing (e.g. shirt collar) for personal sampling or place the Dosi-tube in the workplace where the measurement is required. When the sampling is finished, record the measurement finishing time on the label on the Dosi-tube.
4. Average gas concentration can be obtained from 1 hour to 10 hours sampling. Calculate the actual sampling time and the average gas concentration can be obtained by the following formula:

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

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

## INTERFERENCES :

Substance	Concentration	Interference	Interference gas only
Basic gases		—	No discolouration
Acid gases		+	Pink
Nitrogen dioxide	≥ 0.5 ppm	+	Pink
Hydrogen sulphide		+	Pink

This table of the interference gases primarily expresses the interference of each coexisting gas in the gas concentration range that is equivalent to the target gas concentration. Therefore, the test result may be affected by other substances not listed in the table.

For more information, please contact us or your Gastec representatives.

## DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Ceiling by ACGIH (2014): 4.7 ppm

## INSTRUCTIONS ON DISPOSAL :

This Dosi-tube does not contain any toxic substances. When disposing of 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 the quality of the tubes, please feel free to contact your Gastec representatives.

Manufacturer : Gastec Corporation  
8-8-6 Fukayanaka, Ayase-City, Kanagawa 252-1195, Japan  
<http://www.gastec.co.jp/>  
Telephone +81-467-79-3910 Facsimile +81-467-79-3979

IM0112DE1  
Printed in Japan  
15D1Z