

GASTEC Instructions for No.5DH Sulphur Dioxide 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 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 results.

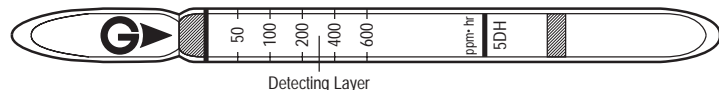
1. Use this tube within the temperature range of 0 - 40 °C (32 - 104 °F).
2. Use this tube within the relative humidity range of 0 - 90%.
3. This tube may be interfered by the coexisting gases. Please refer to the "INTERFERENCES".
4. Shelf life and storage conditions of the Passive dosi-tube are marked on the label of the box of tube.
5. Keep tubes out of direct sunlight. The sunlight may fade the colour of the reagent.

APPLICATION OF THE TUBE :

Use of this tube for the detection of Sulphur Dioxide 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	10 - 600 ppm
Sampling Time	1 - 5 hours
Detecting Limit	1 ppm(5 hours)
Colour Change	Bluish purple → White
Reaction Principle	$\text{SO}_2 + \text{I}_2 + \text{H}_2\text{O} \rightarrow 2\text{HI} + \text{H}_2\text{SO}_4$

Coefficient of Variation : 10% (for 50 to 600 ppm · hr)

**** 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 :

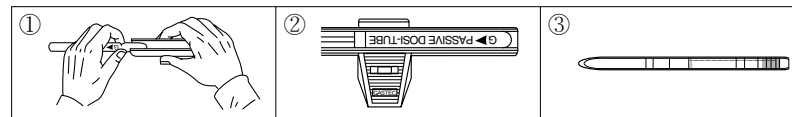
Temperature : Correct for temperature by the table below :

Temperature °C (°F)	0 (32)	5 (41)	10 (50)	15 (59)	20 (68)	25 (77)	30 (86)	35 (95)	40(104)
Correction Factor	1.5	1.35	1.2	1.1	1.0	0.98	0.95	0.93	0.9

Humidity : No correction is required.

Pressure : No correction is required.

MEASUREMENT PROCEDURE :



1. Break tips off a fresh 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. Calculate gas concentration by the following formula :

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

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	Interference	Interference gas only
Nitrogen Dioxide	-	No
Hydrogen Sulphide	+	White (brown around demarcation of stain)

The table of this interference gases primarily expresses the interference of each coexisting gas in the gas concentration range, equivalent to the gas concentration. Therefore, the test result may be given positive result by the other substances not listed in the table. For more information is needed, please contact us or our distributors in your territory.

DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Short Term Exposure Limit by ACGIH (2009) : 0.25 ppm

DISPOSAL INSTRUCTION :

Reagent of the tube does not use toxic substances. When 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.

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