GASTEC No.123TP Instructions for Xylene Detector Tube

FOR SAFE OPERATION :

Carefully read this manual and the instruction manual of your Air Sampling Pump.

⚠ CAUTION : If you do not observe the following precautions, you may suffer injuries or damage to the product.

1. When breaking the tube ends, 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, observe the following.

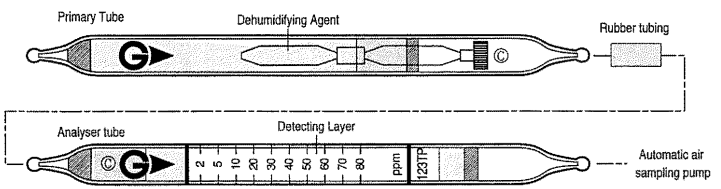
1. Recommend to use Gastec Gas Sampling device Model GSP-300FT-2(if not available use the air sampling pump of equivalent to sample for 100 mL/min) together with Gastec Detector Tubes only for the purposes specified in the instruction manual of the detector tube.
2. Ensure the primary tube is properly connected with an analyser tube before use. If used without primary tube, not only wrong result is given but also the acidic material contained in the detector tube damages the pump.
3. Use this tube within the temperature range of 0 - 40℃ (32 - 104℉).
4. Use this tube within the relative humidity range of 0 - 90%.
5. This tube may be interfered with by the coexisting gases. Please refer to the table "INTERFERENCES" below.
6. Shelf life and storage condition of the tube are marked on the label of the box of tube.

APPLICATION OF THE TUBE :

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

SPECIFICATION :

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



Measuring Range	2 - 80 ppm
Sampling Rate	100 mL/min
Correction Factor	1
Sampling Time	10 minutes
Detecting Limit	1 ppm (1000 mL)
Colour Change	White → Brown
Reaction Principle	$C_6H_4(CH_3)_2 + I_2O_5 + H_2SO_4 \rightarrow I_2$

Coefficient of Variation: 10% (for 2 to 20 ppm), 5% (for 20 to 80 ppm)
****Shelf Life: Please refer to the validity date printed on the box of tube.**
****Store the tubes in the cool and dark place.**

CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :

Temperature : No correction is required.
Humidity : No correction is required.
Pressure : To correct for pressure, multiply the tube reading by

$$\frac{\text{Tube Reading (ppm)} \times 1013\ (\text{hPa})}{\text{Atmospheric Pressure (hPa)}}$$

MEASUREMENT PROCEDURE :

If automatic air sampling pump Model GSP-300FT-2 is used

1. Prior to operation please confirm if black colour inlet rubber tube holder is equipped with the pump.
2. Break tips off a fresh primary tube and an analyser tube with the tube tip holder supplied.
3. Connect Ⓒ marked ends with rubber tubing after breaking each end.
4. Insert the analyser tube into the pump inlet with arrow (G►) on the tube pointing toward pump.
5. Set the flow metre at 100 mL/min and timer to "10 minutes" of the pump. Press the start switch of the pump to start the sampling.
6. After the sampling, remove the detector tube from the pump.
7. Read the concentration level at the interface where the stained reagent meets the unstained reagent.
8. If necessary, multiply the readings by the correction factors of atmospheric pressure.

INTERFERENCES :

Substance	Concentration	Interference	Change colour by itself to
Carbon monoxide	≧75ppm	Unclear demarcation	Brown (≧50ppm)
Ethyl benzene	≧1/3	+	Brown
Ethyl acetate	≦400ppm	No	No discolouration
Dichloromethane	≦30ppm	No	No discolouration
N,N-dimethylformamide	≦25ppm	No	No discolouration
Trichlorethylene	≧1/2	+	No discolouration
Toluene	≧1/3	+	Brown
n-Hexane	≧200ppm	Unclear demarcation	No discolouration
Methanol	≦200ppm	No	No discolouration

This table of interference gases primarily expresses the interference of each coexisting gas in the gas concentration range, that is 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 Gastec representatives.

DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Time Weighted Average by ACGIH (2015): 100 ppm
Threshold Limit Value-Short Term Exposure Limit by ACGIH (2015): 150 ppm

INSTRUCTIONS ON DISPOSAL :

The reagent of the primary tube does not use the toxic substances. The reagent of the analyser tube does not use toxic substances. When disposing the tube regardless of whether it has been used or not, follow the rules and regulations of your 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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IM01123TPE2
Printed in Japan
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