GASTEC No.124S Instructions for Styrene 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.

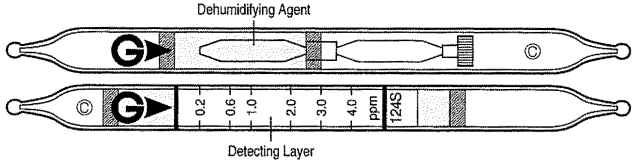
1. Recommend to use Gastec Gas Sampling device Model GSP-400FT (if not available use the air sampler of equivalent to sample for 200 mL/min) together with Gastec Detector Tubes only for the purposes specified in the instruction manual of the detector tube.
2. Use this tube within the temperature range of 0 – 40℃(32 - 104°F).
3. Use this tube within the relative humidity range of 0 - 90%.
4. This tube may be interfered with by the coexisting gases. Please refer to the table "INTERFERENCES" below.
5. 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 Styrene 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	0.2 – 4.0 ppm
Sampling Method	Air Sampling Device – Motor Driven
Flow Rate	200 mL/minute
Sampling Time	5 minutes
Colour Change	White → Yellow
Reaction Principle	$C_6H_5CH{:}CH_2 + H_2S_2O_7 \rightarrow$ Condensation polymer

Coefficient of Variation : 20% (for 0.2 to 1.0 ppm), 15% (for 1.0 to 4.0 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 :

1. Break tips off a fresh primary tube and an analyser tube with the tube tip holder (optional).
2. Connect © marked ends with rubber tubing after breaking each end.
3. Insert the analyser tube into the pump inlet with arrow (G►) on the tube pointing toward pump.
4. Set the flow metre at 200 mL/min and timer to "five minutes" of the sampler. Press the start switch of the sampler to start the sampling.
5. After the sampling, remove the analyser tube from the sampler.
6. Read the concentration level at the interface where the stained reagent meets the unstained reagent.
7. If necessary, multiply the readings by the correction factors of atmospheric pressure.

INTERFERENCES :

Substance	Concentration	Interference	Changes colour by itself to
Alcohols, Esters	≧10 times	+	No discolouration
Aldehydes, Ketons	≧10 times	+	No discolouration
Butadiene	≧2 ppm	+	Yellowish brown (unclear demarcation)

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 or Gastec representatives.

DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Time Weighted Average by ACGIH (2015): 20 ppm
Threshold Limit Value-Short Term Exposure Limit by ACGIH (2015): 40 ppm

INSTRUCTIONS ON DISPOSAL :

The reagents of the tubes do 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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