

# GASTEC Instructions for No.132TP Trichloroethylene Detector Tube

## FOR SAFE OPERATION :

Read this manual and the instruction manual of your Air Sampling Pump carefully.

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

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

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

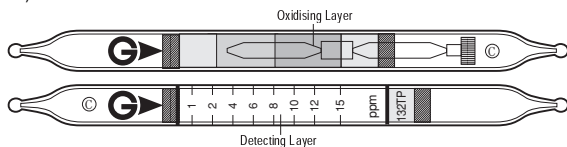
- Recommend use Gastec Gas Sampling device Model GSP-300FT-2 (if not available use the air sampler of equivalent to sample for 100 ml/min) together with Gastec Detector Tubes only for the purposes specified in the instruction manual of the detector tube.
- Use this tube under the temperature range of 0 - 40°C (32 - 104°F).
- Use this tube under the relative humidity range of 0 - 90%.
- This tube may be interfered by the coexisting gases. Please refer to the "INTERFERENCES".
- Shelf life and storage condition of the tube is marked on the label of the box of tube.

## APPLICATION OF THE TUBE :

Use this tube for the detection of Trichloroethylene in air of environmental atmospheric condition.

## SPECIFICATION :

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



Measuring Range	1 - 15 ppm	15 - 33 ppm
Sampling Rate	100mL / min	50mL / min
Correction Factor	1	2.2
Sampling Time	10 minutes	
Detecting Limit	0.2 ppm (1000 mL)	
Colour Change	Yellow → Reddish purple	
Reaction Principle	Trichloroethylene reacts with oxidising agent to produce intermediate products to produce purple stain.	

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

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

**Temperature :** Correct for temperature by the table below:

Temperature °C (°F)	0°C (32°F)	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	25°C (68°F)	30°C (86°F)	35°C (95°F)	40°C (104°F)
Correction Factor	1.37	1.23	1.13	1.05	1.00	0.83	0.76	0.73	0.68

**Humidity :** No correction is required for 0 - 90% R.H.

**Pressure :** To correct for pressure, multiply by the tube reading by

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

## MEASUREMENT PROCEDURE :

**If automatic air sampler Model GSP-300FT-2 is used**

- Prior to operation please confirm if black colour inlet rubber tube holder is equipped with the sampler.
- Break both end of the tips of the primary tube and the analyser tube by the tube tip holder supplied. Connect both tubes with rubber tubing supplied in the box of tubes.
- Insert the analyser tube securely into pump inlet with arrow **G** on the tube pointing toward pump.
- Set the flow meter at 100 mL/min and timer to "10 minutes" of the sampler. Press the power switch of the sampler to start the sampling.
- After the sampling, remove the detector tube from the sampler.
- Read the concentration from the length of discoloration of the tube.
- If correction is needed after sampling, multiply the correction factor of the temperature, sampling volume and pressure respectively.

## INTERFERENCES :

Substance	Concentration	Interferent	Change colour by itself
Hydrogen chloride	≥ 1/10	+	Reddish purple
Chloride	≥ 1/40	-	White
Vinyl chloride	≥ 1/10	+	Reddish purple
1,2-Dichloroethylene	≥ 1/10	+	Reddish purple
Tetrachloroethylene	≥ 1/20	+	Reddish purple
1,1,1-Trichloroethane	≥ 400	-	No
Toluene, Xylene	≥ 10	-	No

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 distributors in your territory.

## DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Time Weighted Average by ACGIH (2008) : 10 ppm

## DISPOSAL INSTRUCTION :

Reagents of the pretreatment tube use a small amount of lead. When dispose of the tube regardless of used or unused, follow the rules and regulations of the local government.

Reagents of the analyser tube do not use toxic substances. When dispose of the tube regardless of 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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