

GASTEC Instructions for No.2HT Carbon Dioxide Detector Tube

FOR SAFE OPERATION:

Read this manual carefully.

⚠ WARNING :

1. Use only Gastec detector tubes in a Gastec syringe.
2. Do not interchange or use non-Gastec parts or components in Gastec's detector tube and syringe.
3. The use of non-Gastec parts or components in Gastec's detector tube and syringe or use of a non-Gastec detector tube with a Gastec syringe or use of a Gastec detector tube with a non-Gastec syringe may result in property damage, serious bodily injury, and death; voids all warranties; and voids all performance and data accuracy guaranties.

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

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 result.

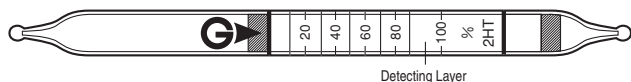
1. Use Gastec Special Syringe Pump together with Gastec Detector Tubes only for the purposes specified in the instruction manual of the detector tube.
2. Use this tube within the temperature range of 0 - 40°C(32 - 104°F).
3. Use this tube within the relative humidity range of 0 - 90%.
4. This tube may be interfered by the coexisting gases. Please refer to the "INTERFERENCES".
5. Shelf life and storage conditions of the tube are marked on the label of the box of tube.

APPLICATION OF THE TUBE :

Use of this tube for the detection of Carbon 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 - 100 %
Number of Pump Strokes	1
Correction Factor	1
Sampling Time	20 mL / 20 seconds
Detecting Limit	2 % (n = 1)
Colour Change	White → Purple
Reaction Principle	$\text{CO}_2 + \text{N}_2\text{H}_4 \rightarrow \text{NH}_2\text{NHCOOH}$

**** 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 : Temperature correction is not required.

Humidity : Humidity correction is not required.

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

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

MEASUREMENT PROCEDURE :



1. Break tips off a fresh detector tube with the tube tip breaker.
2. Make certain the plunger of syringe is all the way in. Pull the plunger to take sample until the plunger head attains the mark "20".
3. Insert the tube into the syringe with "G" mark end towards to the inlet as pictured in the figure.
4. Push the plunger all the way down with constant infusion rate (1mL/sec).
5. Read concentration at the interface of the stained-to-unstained reagent.
6. If atmospheric correction is needed, refer to the "Correction for Pressure".

INTERFERENCES :

Substance	Concentration	Interference	Changes colour by itself
Ammonia		No	No
Carbon Monoxide		No	No
Hydrogen sulphide		No	No
Hydrogen chloride		No	No
Chlorine		No	No
Nitrogen oxides		No	No
Sulphur dioxide		No	No
Amines		No	No
Organic gases		No	No

DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Time Weighted Average by ACGIH (2008) : 5,000 ppm

Threshold Limit Value-Short Term Exposure limit by ACGIH (2008) : 30,000 ppm

DISPOSAL INSTRUCTION :

Reagent of the tube dose not use toxic substances. When dispose 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 quality of the tubes, please feel free to contact your Gastec representatives.

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