

GASTEC Instructions for No.92L Acetaldehyde Low Range Detector Tube

FOR SAFE OPERATION :

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

⚠ WARNING :

1. Use only Gastec detector tubes in a Gastec Pump.
2. Do not interchange or use non-Gastec parts or components in Gastec's detector tube and pump system.
3. The use of non-Gastec parts or components in Gastec's detector tube and pump system or use of a non-Gastec detector tube with a Gastec pump or use of a Gastec detector tube with a non-Gastec pump 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.

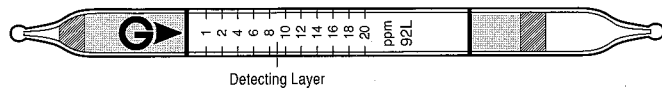
1. When breaking the tube ends, keep away from eyes.
2. Do not touch the broken glass tubes, pieces and reagent with bare hand(s).
3. The sampling time represents the time necessary to draw the air sample through the tube. The tube must be positioned in the desired sampling area for the entire sampling time or until the flow finish indicator indicates the end of the sample.

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

1. Use Gastec Gas Sampling 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 5 - 40°C (41 - 104°F). If this tube is used below 5°C (41°F), demarcation of the tube would be generated as faint discoloration.
3. Use this tube within the relative humidity range of 20 - 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 this tube for the detection of acetaldehyde in industrial areas and environmental.

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



Measuring Range	1 - 20 ppm
Number of Pump Stroke	1
Correction Factor	1
Sampling Time	1.5 minutes per pump stroke
Detecting Limit	0.2 ppm (n = 1)
Color Change	Yellow - Brown
Reaction Principle	$3\text{CH}_3\text{CHO} + (\text{NH}_2\text{OH})_2\text{H}_3\text{PO}_4 \rightarrow \text{H}_3\text{PO}_4$ $\text{H}_3\text{PO}_4 + \text{Base} \rightarrow \text{Phosphate}$

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

**** Store the tubes in the refrigerator to keep at 10°C (50°F) or below.**

CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :

Temperature : Since the tube is affected by the temperature, multiply the correction factor to the tube reading.

Temperature (°C)	5	10	15	20	25	30	35	40
Temperature (°F)	41	50	59	68	77	86	95	104
correction Factor	1.1	1.07	1.05	1.0	0.95	0.93	0.9	0.85

Humidity : Humidity Correction is not 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. For leak checking the pump insert a fresh sealed detector tube into pump. Follow instructions provided with the pump operating manual.
2. Break tips off a fresh detector tube in the tube tip breaker of the pump.
3. Insert the tube securely into pump inlet with arrow (G➔) on the tube pointing toward pump.
4. Make certain pump handle is all the way in. Align guide marks on pump body and handle.
5. Pull handle all the way out until it locks on 1 pump stroke (100ml). Wait 1.5 minutes.
6. Read concentration at the interface of the stained-to-unstained reagent.
7. If atmospheric correction is needed, refer to the "Corrections for Temperature, Humidity and Pressure".

INTERFERENCES :

Substance	Concentration	Interference	Change color by itself
Ketones		Plus error	Produce brown stain
Aldehydes		Plus error	Produce brown stain
Acid Gases		Plus error	Produce brown stain
Ammonia	Less than 30 ppm	No effect	No stain
Acetic Acid	2 times or higher	Plus error	Produce brown stain

DISPOSAL INSTRUCTION : Reagent of the tubes does not use toxic substance. On 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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