GASTEC No.6A Instructions for Water Vapour Airtec Tube

FOR SAFE OPERATION :

Carefully read this manual.

⚠ 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.

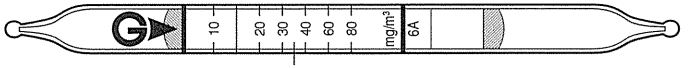
1. Use this tube within the temperature range of 0 - 40℃ (32 - 104℉).
2. Shelf life and storage condition of the tube are marked on the label of the box of tube.
3. In some cases, discolouration may be pale below 20 mg/m³.

APPLICATION OF THE TUBE :

Use this tube for the detection of Water vapour, simply connect the pressure reducer to your high pressure air source, compressor, cylinder, or air line and adjust the flow metre to the required setting.

SPECIFICATION :

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



Detecting Layer

Measuring Range	10 – 80 mg/m³
Sampling Volume (Flow Metre)	500 mL
Sampling Rate	100 mL/min.
Sampling Time	5 minutes
Colour Change	Yellow → Green May produce "purple" colour at higher concentrations
Reaction Principle	$H_2O + Mg(ClO_4)_2 \rightarrow Mg(ClO_4)_2 \cdot H_2O$

Coefficient of Variation: 5% (for 20 to 80 mg/m³)

**** Shelf Life: Please refer to the validity date printed on the box of tube.**

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

CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :

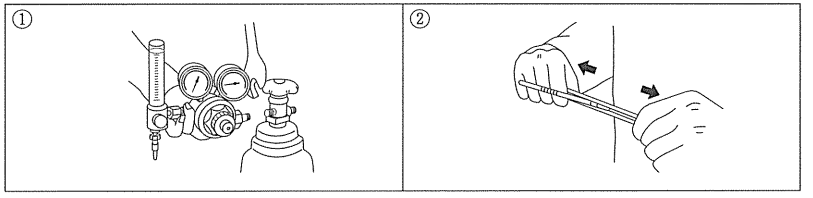
Temperature : No correction is required.

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

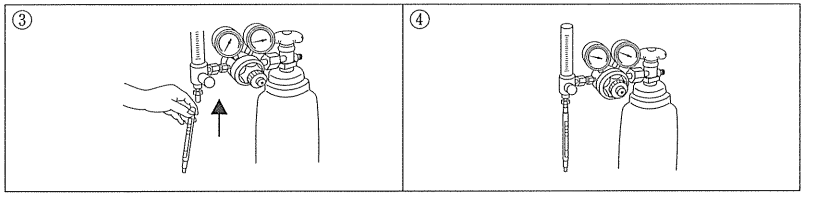
$$\frac{\text{Tube Reading (mg/m}^3) \times 1013 \text{ (hPa)}}{\text{Atmospheric Pressure (hPa)}}$$

MEASUREMENT PROCEDURE :

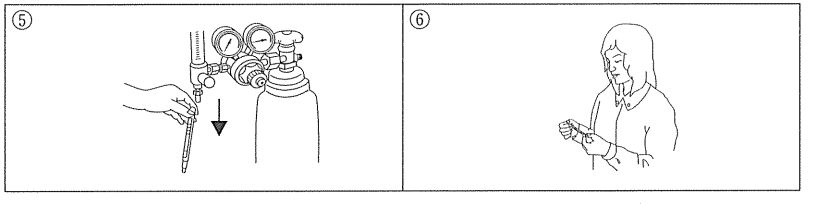
1. Attach a pressure reducer with gauge and flow metre to a cylinder, compressor or air line and adjust the flow metre to the required setting.
2. Break the tips off a fresh detector tube using the tube tip breaker and insert the tube into a tube holder.



3. Attach the rubber tube holder to the flow metre outlet. Make sure the tube arrow (G➤) on the tube is pointing in the downward direction.
4. Turn on the cylinder or compressor and confirm the flow metre according to each Airtec tube specifications.



5. Time the sampling with a stopwatch.
6. As soon as the sampling time has finished, turn off the cylinder or compressor, and remove the tube from the tube holder and then read the colour-changed layer immediately.



7. If the sampling volume deviates from the volume specified in this instruction manual, correct the tube reading by the following formula. In this case, use the concentration as a reference.

$$\text{Concentration (mg/m}^3) = \frac{\text{Tube Reading} \times 500}{\text{Sampled Volume (mL)}}$$

Use of the Compressed Breathing Air Measurement Kit Model. No.CG-1

When the Airtec tube used with the Model. No. CG-1 kit, make sure to preset the flow rate of the CG-1 device and adjust the sampling time according to the following table. For the measurement procedure, carefully read and follow the instruction manual supplied with the CG-1 kit.

Measuring Range	10 – 80 mg/m^3
Sampling Time	5 minutes
Specified Flow Rate	120 mL/min(±10 mL/min)
Correction Factor	1
Colour Change	Yellow → Green May produce "purple" colour at higher concentrations
Reaction Principle	$H_2O + Mg(ClO_4)_2 \rightarrow Mg(ClO_4)_2 \cdot H_2O$

INSTRUCTIONS ON DISPOSAL :

The reagent of the tube does not use toxic substance. 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 the quality of the tubes, please feel free to contact your Gastec representatives.

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