GASTEC No.3S Instructions for Ammonia Detector Tube

FOR SAFE OPERATION :

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

⚠ CAUTION : If you do not observe the following precautions, you may suffer injuries or damage the product.

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

⚠NOTES : For maintaining performance and reliability of the test results, observe the following.

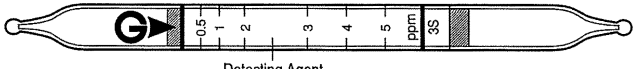
1. Use Gastec Gas Detector Tube together with Gas Sampling Device which can take sample at 150 mL/minute.
2. Use this tube within the temperature range of 0 - 40℃ (32 - 104°F).
3. Use this tube within the relative humidity range of 0 - 90%.
4. This tube may be interfered with by the coexisting gases. Please refer to the table "INTERFERENCES" below.
5. The shelf life and storage condition of the tube are marked on the label of the tube box.

APPLICATION OF THE TUBE :

Use this tube for detecting Ammonia in the air or in industrial areas and for determining the environmental atmospheric condition.

SPECIFICATION :

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



Detecting Agent

Measuring Range	0.5 – 5 ppm
Sampling Method	Air Sampling Device – Motor Driven
Flow Rate	150 mL/minute
Sampling Time	5 minutes (Total 750 mL)
Colour Change	Pink → Yellow
Reaction Principle	$2NH_3 + H_2SO_4 \rightarrow (NH_4)_2SO_4$

Coefficient of Variance : 10% (for 0.5 to 1 ppm), 5% (for 1 to 5 ppm)
****Shelf Life : Please refer to the validity date printed on the tube box.**
****Store the tubes in a dark and cool place.**

CORRECTION FOR TEMPERATURE, HUMIDITY AND PRESSURE :

Temperature : No correction is required.
Humidity : No correction is required.
Pressure : To correct for pressure, use the formula below :

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

MEASUREMENT PROCEDURE :

1. Break both end of the tips of the tube by the tube tip holder.
2. Insert the tube securely into pump inlet with arrow (G►) on the tube pointing toward the sampler.
3. Set the flow metre at 150 mL/min and timer to "5 minutes" of the sampler.
4. After the sampling, remove the detector tube from the sampler.
5. Read the concentration from the length of discolouration of the tube.

INTERFERENCES :

Substance	Concentration	Interference	Interference gas only
Amines, Diamines	≧1/5	+	Yellow

This table of interference gases primarily expresses the interference of each coexisting gas in the concentration range, that is equivalent to the gas concentration. Therefore, the test result may show positive results due to other substances not listed in the table. If more information is needed, please contact us or our distributors in your territory.

DANGEROUS AND HAZARDOUS PROPERTIES :

Threshold Limit Value-Time Weighted Average by ACGIH (2013): 25 ppm
Threshold Limit Value-Short Term Exposure Limit by ACGIH (2013): 35 ppm

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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