

GASTEC Instructions for No.218 Ozone in Solution Detector Tube

FOR SAFE OPERATION :

Read this instruction manual carefully prior to use.

△ 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 to the test result

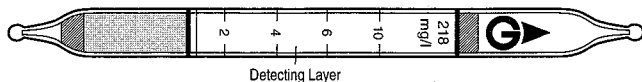
1. Use this tube within the temperature range of 0 - 40°C (32 - 104°F) in water.
2. This tube may be interfered by the coexisting substances. Refer to the "INTERFERENCES".
3. Shelf life and storage condition of the tube is marked on the label of the box of tube.
4. Place the tubes higher end plug packing above the water surface.
5. If tubes are kept more than 30 minutes in the water, the printed scale of the tube will be peel off. Read the concentration immediately after the sampling is completed.

APPLICATION OF THE TUBE :

Use this tube for the detection of Ozone in Solution.

SPECIFICATION :

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



| | |
|------------------|---|
| Measuring Range | (1) - 10 mg/l |
| Sampling Time | 3 minutes |
| Detecting Limit | 0.5 mg/l |
| Color Change | Pale blue → White |
| Reaction Formula | Ozone react with indigo to produce chemical reaction products to discolor the reagent to white. $2O_3 + C_{16}H_{10}N_2O_2 \rightarrow 2C_8H_5NO_2 + 2O_2$ |

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

**** Store the tubes under dark and cool place.**

EFFECT BY ATMOSPHERIC CONDITION :

Temperature : To correct for temperature multiply the correction factor below.

| | | | | | |
|---------------------------|--------|---------|---------|---------|----------|
| Water Temperature °C (°F) | 0 (32) | 10 (50) | 20 (68) | 30 (86) | 40 (104) |
| Correction Factor | 0.8 | 0.9 | 1 | 1.2 | 1.3 |

MEASUREMENT PROCEDURE :

1. Take sample solution into an approximately 100 ml capacity of dry, clean beaker.
2. Break tips off a fresh detector tube by bending each tube end in the tube tip breaker.
3. Immerse the filled end of the tube into the sample water as illustrated below. Capillary action occurs and the sample water instantly rises through the reagent.
4. When the sample water rises up to the upper end plug, remove the tube.
5. Read concentration at the interface of the stained-to-unstained reagent.

△ NOTES :

More than 30 minutes laps after immersion of the tube will cause peeling off of the calibration marks. If tube did not start capillary action immediately after immersion into the water, we recommend the use of a rubber bulb to help start the action. Connect the squeezed rubber bulb at the upper end of glass tube. When the tube begins capillary action, remove the rubber bulb from the tube. Tube must be read immediately after the test. Do not immerse the tube into sample water past the upper end plug.

INTERFERENCES :

| Substance | Concentration | Interference | Change color by itself |
|-------------------------------|-----------------|--------------|---|
| H ₂ O ₂ | ≥ 0.05mg/l | Minus error | No discoloration. |
| ClO ⁻ | ≥ 5 (Cl) mg/l | Minus error | Produce white discoloration for whole layer higher than 500 mg/l. Do not produce demarcation. |
| | ≥ 500 (Cl) mg/l | | |
| Acid(H ⁺) | | Plus error | No discoloration. |
| Alkali(OH ⁻) | | Minus error | No discoloration. |

DISPOSAL INSTRUCTION :

Reagent of the tube does not use a toxic substance. On disposing 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.