

KES

Test Method of Nitrite for Drinking Water

KES T – L284

(EST.) 1989 – 10 – 30

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1. Scope of Application

This standard shall specify the test of nitrite for drinking water.

2. Purpose

This purpose shall analyze the water and determine the appropriateness about the use

3. Equipment, Apparatus and Reagent

(1) Apparatus : 50 mL of colorimeter tube

(2) Reagent

- (a) GR nitrite reagent : 1 g of alpha – naphthylamine and 10 g of sulfanilic acid are uniformly mixed to 89 g of powder tartaric acid and reserved in the brown bottle with sealing.
- (b) Sterilization distilled water : The distilled water is sterilized by high-pressurized vapor.
- (c) Nitrite standard undiluted solution : The sodium nitrite is dried in the sulfuric acid desiccator for 18 ~ 24 hours and 0.4926 g is turned to 1 L by the sterilization-distilled water in the mass flask.

This solution is easily resolved by bacterium so that 1 mL of chloroform is added as an antiseptic and preserved in the sterilization bottle.

This solution contains 1 ppm of nitrite.

4. Test Method

4.1 Qualifying action

50 mL of inspection water is gathered in the colorimeter tube and 0.3 g of GR nitrite is added & mixed. Then, it is stopped for 10 minutes.

- (1) If the nitrite exists, red color appears.

4.2 Correct measurement

- (1) 50 mL of inspection water is gathered in the colorimeter tube.
- (2) 0-1, 0-2, 0-3 ... 1 mL of nitrite standard undiluted solution is gathered with sequences to separate copper colorimeter tube by using the mess pipette and it turns to 50 mL by adding distilled water.
- (3) 0.3 g of GR nitrite reagent is added and mixed to each pipe of inspection water & standard solution. Then, it is stopped for 10 minutes.
- (4) As the color of inspection water is compared to the that of standard solution, several mL of corresponding nitrite is calculated.