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**Doc No :** PDAE217**Date :** 01-02-2024**Type :** AQUASOL**Product Code:** AE217**PRODUCT DATA SHEET****1 INFORMATION**

CODE: AE217

PARAMETER: NITRITE

RANGE: 0.025 - 0.8 mg/l as NO<sub>2</sub>**2 METHOD**

In acidic solution nitrite ions react with sulfanilic acid to form a diazonium salt, which in turn reacts with N-(1-naphthyl)ethylenediamine dihydrochloride to form a red-violet azo dye. This dye is determined by colorimetric method.

**3 APPLICATION**

Groundwater, drinking water, and surface water

**4 INTERFERENCE**

NO<sub>3</sub> imparts a false red color when color reagent is added. The Following ions interfere because of precipitation under test conditions and should be absent: Sb<sup>+</sup>, Au<sup>3+</sup>, Bi<sup>3+</sup>, Fe<sup>3+</sup>, Pb<sup>2+</sup>, Hg<sup>2+</sup>, Ag<sup>+</sup>, Chloroplatinate, and metavanadate. Cupric ion may cause low results by catalysing decomposition of the diazonium salts. Colored ions that alter the color system also should be absent. Remove suspended solid by filtration.

**5 METHOD CONTROL**

To Check test reagents,

Prepare 1000 ppm Nitrite as NO<sub>2</sub> standard :- Take 1.5 gm of sodium nitrite in 1000ml standard volumetric flask, dilute it with demineralised water up to 1000ml stir well, and analyse as described in procedure.

**6 REAGENTS AND ACCESSORIES**

Reagents: HNT2(1Nos), HNT3(1Nos)

Accessories: 25 ml Test Jar(1Nos), Procedure Label(1Nos), spoon, Comparator tube(2 nos)

**7 STORAGE**

The test reagents are stable up to the date stated on the pack when stored closed at ambient temperature

**8 REFERENCE**The method is analogous to APHA 4500-NO<sub>2</sub> B, IS 3025-1964**9 DIRECTION FOR USE**

1. Take 5 ml sample in test jar.

2. Add 3 drops of HNT2. Mix and allow to wait for 3 minutes.

3. Now add one spoonful of HNT3, shake well to dissolve, Wait for 5 minutes to allow maximum colour development, then dilute to 25 ml mark with DM water.

4. Transfer the content in small comparator tube provided here.

5. Read the ppm nitrite as follows:

a) Place the comparator tube on the inner white circle, on the colour comparison chart.

b) View from the top of the comparator tube to compare the sample colour and the colour around.

c) Read the ppm NITRITE as NO<sub>2</sub> after arriving at the correct match.