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Doc No : PDAE227**Date :** 01-02-2024**Type :** AQUASOL**Product Code:** AE227**PRODUCT DATA SHEET****1 INFORMATION**

CODE: AE227

PARAMETER: NITRITE (fresh water)

RANGE: 0 To 5.0 ppm as NO₂**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

NO₃ 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⁺, Au³⁺, Bi³⁺, Fe³⁺, Pb²⁺, Hg²⁺, Ag⁺, 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 NO₂ 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: 10 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 REFERENCEThe method is analogous to APHA 4500-NO₂ B, IS 3025-1964**9 DIRECTION FOR USE**

- 1) Take 5 ml sample in the test jar.
- 2) Now add 3 drops of HNT2, mix. Keep standing for 3 minutes.
- 3) Now add 1 spoonful of HNT3, mix and wait for 5 minutes, then dilute to 10 ml with Distilled water or nitrite free water.
- 4) Transfer the content in the comparator tube.
- 5) Place the comparator tube in the comparator slot.
- 6) Read the Nitrite as NO₂ as follows.
 - a) Hold the comparator vertically against the light at eye level.
 - b) Match the colour to the colour shade on the comparator.
 - c) Read the Nitrite value corresponding to the colour.