

**RAKIRO BIOTECH SYSTEMS PVT LTD**

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Doc No : TDSAE411

Date : 01-02-2025

Brand : AQUASOL

Product Code: AE411

**PRODUCT DATA SHEET****1 INFORMATION**

Code - AE411

Name - Phosphonate Test Kit

Range - 2-40 &amp; 5-100 PPM (Mg/L)

No of Tests - 300

Shelf Life - 24 Months

**2 METHOD**

Classic chemical method.

**3 APPLICATION**

Drinking Water, Mineral Water, Well Water, Swimming Pool Water, Surface and Ground Water, Aquaculture, Boiler Water, Process Water, Industrial Wastewater, Effluent Water, Cooling System Water, Chiller Water etc

**4 INTERFERENCE**

Not Known

**5 METHOD CONTROL**

To Check test reagents,

Preparation of 1000 ppm Phosphonate standard solution Take 0.3 gm of 1-Hydroxy ethylidene -1,1 Diphosphonic Acid ( HEDP=60% ) in 100 ml standard Volumetric flask , dilute It with demineralised water , stir well .

Now this is 1800 ppm phosphonate standard solution.

Now prepare 1000 ppm standard solution from 1800 ppm solution by using following formula

$$N1V1 = N2V2$$

**6 REAGENTS AND ACCESSORIES**

Reagents: SQ1 (1No), SQ2(1 no), SQ3(1 no), SQ4(1 No), SQ5(1 No)

Accessories: Comparator tube (2Nos), Procedure Label(1Nos), Colour Comparator.

**7 STORAGE**

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

**8 REFERENCE**

Classic chemical method.

**8 DIRECTION FOR USE**

1.Take 10 ml of filtered water sample in the test jar.

2.Add two drops of SQ 1. Mix well to dissolve

3.Adjust pH of the sample between 2 to 3 by dropwise addition of SQ2. Use pH paper.

4.Add one spoonful (provided herewith) of SQ3 Powder, Mix well. Then the sample turns yellow.

5.Now drop wise \* add SQ 4 L, counting the number of drops while mixing until the colour changes from yellow to red / reddish orange. Note the number of drops added.

Say (S)

6.Repeat the procedure given above with raw water of makeup water/ sample blank. Note the number of drops added say (B)

# If the expected Phosphonate level of the sample is more than 40 ppm, then

use SQ4 instead of SQ 4L.

Calculations:

Phosphonate ppm as HEDP = 2 X (S-B)

= 2X (No. of drops of SQ4L for Sample–No. of drops of SQ4L for Blank)

= 5 X (S-B)

=5 X (No. of drops of SQ4 for Sample - No. of drops of SQ 4 for Blank)