

**RAKIRO BIOTECH SYSTEMS PVT LTD**

R-466, TTC Industrial Area, MIDC

Rabale, Navi Mumbai - 400701

Tel No. +91-022-47804040

Email :- sales@rakiro.net

**Doc No :** TDSAE401**Date :** 01-02-2024**Type :** AQUASOL**Product Code:** AE401**PRODUCT DATA SHEET****1 INFORMATION**

CODE: AE401

PARAMETER: Phosonate

RANGE: 5-100 &amp; 50-1000 ppm as HEDP

**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: 25 ml test jar (2Nos), Procedure Card(1Nos),

**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.

**9 DIRECTION FOR USE**

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

2.Add 2 drops of SQ 1. Mix well.

3.Adjust pH of the sample between 2 to 3 by drop wise addition of SQ 2 Use pH paper.

4.Add one spoonful (provided herewith) of SQ 3 powder. Mix well. Then the sample turns yellow.

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

Note the number of drops added. Say (S).

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

# If the expected Phosphonate of the sample is more than 100 ppm, then use SQ5 instead of SQ4.

Calculations:

Phosphonate ppm as HEDP = 5 x (S - B)

= 5 x (Number of drops of SQ 4 for sample) – (Number of drops of SQ 4 for blank)

= 50 x (S - B)

= 50 x (Number of drops of SQ 5 for sample) – (Number of drops of SQ 5 for blank)