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 :	PDAE216
Date :	01-02-2024
Type :	AQUASOL
Product Code:	AE216

PRODUCT DATA SHEET

1 INFORMATION

CODE: AE216 PARAMETER: SULPHITE RANGE: 5-100 mg/l as Na2SO3

2 METHOD

In acidified sample, the starch indicator is used to indicate end point of iodide- iodate titration of sulphite (SO3). The result is expressed as mg/l (ppm) SO3.

3 APPLICATION

Boiler water, process water (added sulphite)
Sample Handling:
Sulphite is rapidly destroyed by atmospheric oxygen. Contact with air must be minimized and sample manipulation (shaking, filtering, etc.) should be avoided. Analysis should be performed immediately after collection. Sample temperatures should be below 50°C at the time of analysis.

4 INTERFERENCE

The presence of other oxidisable materials, such as sulphide, thiosulphate, &Fe2+ ions, can cause high results for sulphite. Sulfamic acid is added to the sample during analysis to prevent interference from nitrite. Some metal ion such as Cu2+, may catalyse the oxidation of SO32- to SO4 2-when the sample is exposed to air, thus leading to low results. minimize oxidation of sulphite to sulphite by metals such as copper, the reagent is formulated with EDTA. Ascorbic acid (Vitamin C) will cause false high test results.

5 METHOD CONTROL

To Check test reagents,

Prepare 1000 ppm sulphite standard(as Na2SO3):- Dissolve 1.0 gm Sodium Sulphite in distilled water and make up the volume to one liter in standerd volumetric flask.Dilute this standard solution with distilled water to 50 mg/lNa2SO3, analyse as described in procedure card.

6 REAGENTS AND ACCESSORIES

Reagents: ST1(1No), ST2(2No), AK1(1No), AK2(1No)
Accessories: 25ML Plastic Test Jar(1Nos), Procedure Label(1Nos), Plastic Spoon(1Nos)

7 STORAGE

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

8 REFERENCE

APHA Standard Methods, 22nd ed., Method 4500- SO3 - B – Standard Methods for Chemical Analysis of Water and Waste water.
IS 3025 (Part 40): 1991

9 DIRECTION FOR USE

Directions for Use:
1.Take 10 ml of water sample to be tested in the test jar.
2.Add 2 drops of AK 1 (Alkalinity indicator).
3.If a pink colour does not appear, proceed to step 5.
4.If a pink colour appears, then drop wise add AK 2 (Alkalinity neutralizer) until the colour disappears. Then proceed to step 5.
5.Add 2 spoonfuls (provided herewith) of ST 1 and mix well.
6.Now drop wise* add ST 2, counting the number of drops while mixing, until the colour changes from colourless to blue.

Calculations:
Sulphite as ppm Na2SO3 = 5 x (Number of drops of ST 2)

AE 216 is recommended for use in detecting Sulphite residue in boiler water or in water where Sulphite has been added.
Note: Sample should be neutralize using AK 1 & AK 2 reagent to get correct reading of Sulphite residue. Very high Sulphite content (above prescribe range) may not show the colour change, unless suitably dilute.