

**RAKIRO BIOTECH SYSTEMS PVT LTD**

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Doc No : TDSAE403**Date :** 01-02-2024**Type :** AQUASOL**Product Code:** AE403**PRODUCT DATA SHEET****1 INFORMATION**

CODE: AE403

PARAMETER: Carbon Dioxide

RANGE: - 2-40 & 10-200 ppm as CO₂**2 METHOD**

With this titrimetric chemistry, free CO₂ reacts with sodium hydroxide to form sodium bicarbonate. The sample is titrated to a phenolphthalein endpoint. Results are expressed in ppm (mg/L) carbon dioxide (CO₂).

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 REAGENTS AND ACCESSORIESReagents: AK1 (1No), CO₂B(1 no), CO₂C(1 no)

Accessories: 25 ml Test jar , Procedure Label(1Nos).

6 STORAGE

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

7 REFERENCEAPHA Standard Methods, 21st ed., Method 4500-CO₂ C (2005).**8 DIRECTION FOR USE**

1. Take 10 ml of water sample to be tested in the jar.
2. Add 5 drops of Reagent AK1 mix well to dissolve.
3. If a pink colour appears it indicates free CO₂ is absent.
4. If the sample remains colourless drop wise* add Reagent CO₂ B #, Counting the number of drops while gently swirling, until the definite pink colour persist for 30 seconds, when view through the depth of sample.

IF the CO₂ is more than 40 ppm then use Reagent CO₂ C Instead of Reagent CO₂ B.

Calculations :-

$$\begin{aligned} \text{Free Carbon dioxide ppm as CO}_2 &= 2 \times (\text{No. of drops of Reagent CO}_2 \text{ B}) \\ &= 10 \times (\text{No. of drops of Reagent CO}_2 \text{ C}) \end{aligned}$$

Note: The reagent must be protected from atmosphere CO₂ by keeping bottle closed all the time. Close the cap immediately after use.