7.Determination of Chlorine

Purpose:

To provide a standard method for determining Chlorine of the water sample.

Equipment:

1. DPD Chlorine Test Kit- Merck/Taylor.
2. 250ml glass beaker.
3. Reagents / Chemicals:
    - C12 1, C12 2 Reagents E – Merck

Procedure:

Sample Preparation:

1. Before sampling allow water to run to waste for 1 minute and then rinse the sampling beaker with the water to be tested before taking the sample.

Total Chlorine:

1. Rinse the test bottles and the syringe thoroughly with the water to be tested.
2. With the help of syringe, add 6ml of water sample (15 – 40^{o}C) to each of the two test bottles.
3. Add 2 level micro-spoons of C12 1 reagent to the right hand test bottle and swirl to mix and dissolve the reagent.
4. Add 2 drops of C12 2 reagents to the right-hand test tube and mix.
5. Hold the comparator to a bright light and observe through the opening in front and rotate the disc to obtain a color match. Read after 1 minute.
6. Record the results in Water Treatment Quality Control Report.

Free Chlorine:

1. Perform steps 3.1.1 and 3.1.2 of total chlorine test.
2. Add 2 level micro-spoons of C12 1 reagent to the right-hand test tube and dissolve the reagent immediately.
3. Immediately add 2 drops of C12 3 reagent to the right-hand test tube and mix.
4. Perform step 3.1.5 of total chlorine test.

Record the results in water Treatment Quality Control Report.

Combined Chlorine:

1. Combined Chlorine is calculated by the formula
2. Combined Chlorine = Total Chlorine – Free Chlorine.