

HORROCK'S APPARATUS

- Estimates - chlorine demand of water
- Content - 6 white cups (200ml), 1 black cup, 2 metal spoons, 7 glass stirring rods
- Indicator - starch iodide (produce blue color)
- Development of blue color indicates, presence of residual chlorine •

Steps

- 1 Spoon (2g) of bleaching powder is added in Black cup and a thin paste is made with water • More water is added to bring it up to the circular mark, this solution is called as "Chlorine Stock

Solution"

- 6 White cups are filled with the water to be tested
- Using the Pipette in apparatus, add 1 drop of the stock solution to the 1st cup, 2 drops to the 2nd cup, 3 drops to the 3rd cup, and so on to the 6th cup.
- Stir water in the cups with separate Rods
- Wait for 1/2 hour
- Add 3 drops of starch-iodide indicator to each white cup
- Development of blue color indicates the presence of free residual chlorine.
- First cup which develops this color gives

an estimate of the amount of bleaching powder needed to disinfect 455 L of the sample water.

- Chlorine demand (dose of bleaching powder required) = $n \times 2$ gm to disinfect 455 litres of water