

## How to ensure water safety for your school or business ahead of the economy reopening.

This re-opening program covers refreshing the water systems in schools, offices, malls and processing facilities for ensuring safe water & managing Health and Safety.

### Step 1 - Empty water storage tanks

The fact is water does not expire but can get contaminated chemically and biologically. Stagnant water can go stale resulting in unusual tastes. Biofilm growth, algae, pathogens, dead animals and metallic ions that are normally eliminated by regularly circulating water can build up in the water delivery system.

Permanent storage tanks are usually fitted with a washout valve that draws liquid from the base. Use this, rather than the normal outlet valve, for emptying. Discharge to sewer line and not in open field.

### Step 2 - Clean storage tanks

Visually inspect the Storage tanks, carefully from the top manholes, and design a cleaning program based on observable matter inside the tank.

Use a mixture of detergent and hot water (household laundry soap powder will do) to scrub and clean all internal surfaces of the tank. This can be done with a stiff brush or a high pressure jet.

Attaching the brush to a long pole makes it possible to clean the tank without going inside, otherwise Wear white gumboots and an overall if the cleaning has to be done from the inside. Dip the cleaning brushes and gumboots in Chlorine solution before going into the tank.

### Step 3 - Flush the water supply systems

After filling the clean tank, run the water through all taps for say 10 minutes to offset any accumulated loose scales or any matter in the piping systems.

### Step 4 - Add disinfectant

The most common way of disinfecting a water tank is by chlorination. Chlorine is delivered in a variety of ways but the most common is high-strength calcium hypochlorite (HSCH).

Fill the tank a quarter way with clean water. Sprinkle 80 grams of granular HSCH into the tank for every 1000 liters total capacity of the tank. Fill the tank with clean water, close the lid and leave it to stand for 24 hours. To disinfect pipes - run the water until you can smell the disinfectant. Close the tap and leave the high disinfectant water to sit overnight. Flush the system with clean water.

### Step 5 - Opening Quality Test

To be sure of the quality of water and ascertain if there will be any need for further treatments, you can request for the following analysis on your water:

Code	Analysis Name	Details	Price Guide	Working Days
CNWA529	KEBS Drinking Water Standard Analysis	pH, Electrical Conductivity, Aluminium, Ammonium, Calcium, Magnesium, Potassium, Sodium, Nitrates, Sulphate, Chloride, Phosphate, Fluorides, Nitrite, Bicarbonate, Boron, Copper, Iron, Manganese, Zinc, Hardness, Turbidity, Total Suspended Solids, Total Dissolved Solids, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Nickel, Molybdenum, Selenium	10,500.00 + VAT	10
NSWA019	KEBS Packaged Water Microbiology	TVC @22, TVC @37, Total Coliforms, <i>Faecal E. Coli</i> , <i>Staphylococcus aureus</i> , Sulphite reducing anaerobes, <i>Salmonella ssp</i> , <i>Pseudomonas aeruginosa</i> , <i>Shigella</i> , <i>Streptococcus faecalis</i>	10,800.00 + VAT	10
CNWA530	KEBS Drinking Water Minimum Monitoring	pH, EC (Salts), Colour, Turbidity, Aluminium, Iron, Fluorides, Nitrates, Nitrite, Ammonium, Free Chlorine	6,500.00 + VAT	10
NSWA023	KEBS Water Minimum Monitoring Microbiology	<i>E. Coli</i> , <i>Shigella</i> , <i>Salmonella ssp</i>	3,000.00 + VAT	10