



Using Water Purification NADCC Tablets with the MAMA Home Water Filtration and Chlorination System

MAMA Project addresses the problem of water borne illnesses by promoting water purification in the home, school or clinic. Please refer to our module on Water in the Child Survival Training on our website- mamaproject.org. We promote the Sawyer Point One Water filter. Refer to sawyer.com for excellent information.

1. Assemble your system using two 5-gallon (20 liter) buckets
2. Fill the Top bucket with untreated water. Let the water settle, so the contamination drops to the bottom.
3. Then, filter 5 the **entire** 20 liters/5 gallons of water at once
4. Next, chlorinate the entire 5 gallons at one time, always following the exact directions.

Note: Sawyer Point One filter will remove bacteria and parasites, but not viruses. In order to remove viruses, you need to add chlorine AFTER filtering water. If you add chlorine to unfiltered water, the organic material will use up the chlorine, and make compounds that can be harmful. And you won't know exactly how much to use, since more contaminated water requires more chlorine.

5. Chlorination can be done using liquid solutions or tablets. In some places in the world, liquids are more available, and in other places, it is easier to get the tablets.
6. Tablets are much more stable than liquid chlorine. Liquid chlorine solutions aim to have full potency for 6-12 months, while tablets can claim a 5-year shelf life.
7. NaDCC (Sodium Dichloroisocyanurate) is a chlorine compound used for tablets for disinfecting drinking water, and can also be used to make stronger disinfecting solutions for industrial and medical use.
8. It is very important to follow the manufacturer's directions.
9. NaDCC comes in many brand names- Aquatabs or Water Guard are familiar brands. In Tanzania, for example Water Guard is available in a 67 mg tablet. This contains 40 mg of chlorine. If being used to chlorinate water filtered by the Sawyer Point One filter, one tablet per 20 liters yields 2 ppm (2 parts per million) free chlorine concentration. (Goal is 1-2 ppm). (MAMA Project calculated, and documented with test strips.) A 33mg tablet (or ½ of a 67mg tablet yields 1ppm, and that is sufficient, with less taste of chlorine. It is extremely important to purchase the correct tablet size for your use. For example, Ef-Chlor in India makes 17 different dose size tablets - a **3.5 mg** tablet is used for 1 liter, while a **500mg** tablet is used for a 150-liter barrel of water. So, you have to know the size of the tablet, and follow the directions of the manufacture. It is helpful to use a test strip when getting started. Also, a very faint aroma of chlorine lets you know that there is residual free chlorine still killing pathogens that may accidentally be re-introduced into your drinking water.
10. Never take the lid off the bottom bucket, but make a hole in it for a permanent stirring stick. It is very important to stir the bottom (filtered water) bucket to mix the added chlorine into the water. If you use liquid it only takes 12 circles to mix the chlorine in. A tablet has to dissolve, so wait 2-3 minutes then stir 12 times, and wait 30 minutes before drinking.