

Maintain more; decontaminate less

Once your collected rainwater is chlorinated, focus on your catchment system maintenance. Regular maintenance will go a long way toward giving you optimum quality water and keeping your whole system clean. **To drink your water, you also need an absolute 1-micron filter to remove cysts.**

- 1. Check your roof and gutters. Remove any leaves, branches, dirt or other litter** so that it will not block your gutters or decompose in your water, creating habitat and food for microorganisms. Catching debris in a screen, nylons, first flush diverter or other filters before it enters the tank makes a big difference in tank water quality.
- 2. Trim or remove any plant materials that overhang your house;** animals often use these to access your roof and gutters.
- 3. Check your tank and its cover.** Make sure the cover is secure and does not allow animals to fall, creep, crawl or jump in. **Cover any side openings in your tank with a board or piece of screen.**
- 4. Test your water regularly** so that you know that you do not have fecal matter in your water.
- 5. Change filters** according to manufacturer recommendations.
- 6. If you have a UV system,** clean and replace the light bulb as recommended.

Checklist:

6 Steps to decontaminate your rainwater catchment system

1. Remove any accumulated sludge.
2. Remove carbon or charcoal filter.
3. Add chlorine or bleach; wait one hour, then check for a slight chlorine smell. Add more if necessary.
4. Flush out each faucet or pipe, one at a time.
5. Clean out filter housings and put in new water filters.
6. Maintain the light bulb in a UV system.

For more information, contact:

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RAINWATER CATCHMENT SOLUTIONS:

How to Decontaminate & Maintain Your Catchment System



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When do I need to decontaminate my catchment?



If your water looks or smells bad, if your purification system was interrupted or if your fecal indicator test shows that your water is contaminated, that means that birds, cats, geckos, rats, or other animals have contaminated the water with their waste.

Waste contains bacteria, viruses and protozoa that can make you seriously sick, so it's important to clean your water and catchment system as soon as possible.

How do I decontaminate?

- 1. Check your water tank. Remove the sludge or sediment on the bottom.** This can be done with a swimming pool broom attached to a hose to siphon out the debris from the tank. Broom the debris into one area, let the sediment settle, and then vacuum or siphon it out, whether your tank is full or empty. If you are unable to do this yourself, you can hire a commercial tank cleaner who can do it for you.
- 2. If you have a charcoal or carbon filter, remove it from your system temporarily to allow chlorine through.**
- 3. Mix chlorine** (sodium hypochlorite or calcium hypochlorite) **in a bucket of water so it dissolves and distributes evenly.** Pour it into the tank. If possible, stir the water to spread the chemical

around the tank and through the water. You can use plain, unscented household bleach, which contains sodium hypochlorite. It is inexpensive and widely available. You can also buy food-grade solid chlorine or calcium hypochlorite at chemical supply companies. **Note: Do not use swimming pool chlorine** which could contain chemicals that may be harmful if used for bathing or drinking. **The amount of**

chemical to mix will vary with each system. Check for chlorine at your kitchen faucet after the chemical has

been in the system for about an hour, either by noticing a faint smell or using a chlorine test. To decontaminate, start with enough chlorine to make

about a 4 part per million solution in your tank. If you are using 6% sodium hypochlo-

rite (ultra household bleach), start with 8 ounces of bleach per 1000 gallons of water. The amount you need will vary depending on how dirty the system is. As an example, if you have a 10,000 gallon water tank that is full of water, start with 80 ounces of ultra household bleach. After an hour, open the faucet to pull treated water from the tank and flush the line. If you cannot smell the chlorine in the treated water, you need to add more.

- 4. Once you can smell chlorine at the faucet, flush out each faucet or pipe, one at a time, until the chlorine solution goes through.** Don't forget outdoor faucets. This is also a good time to run a load of laundry using hot water, in order to flush both your washing machine pipes and your hot water tank.



- 5. Clean out filter housings and put in new filters.**
- 6. If you have a UV purification system, wipe down the bulb with a soft cloth to remove any mineral buildup.** Bathroom lime remover products may help clean the bulb. **Check your lightbulb to make sure it is functioning properly and replace the bulb** based on the manufacturer's recommendations. Just because the lightbulb is on doesn't mean the light is still strong enough to function properly.

How will I know if my system is clean?

Retest your water. There should be no fecal contamination. Also, if you use chlorine to regularly treat your system, you could test for free chlorine or note a faint smell of chlorine when you turn on the faucet. You will not smell chlorine if you have a type of filter that removes it, like a charcoal or carbon filter.

How long will decontamination last?

Treatment effects vary from a few days to several weeks, depending on evaporation (sunny or shady days; solid or mesh tank cover), water use, dilution from fresh rainfall, and potential new contamination.

How much chlorine do I use to maintain my system?

Your tank should always have 0.2 to 1.0 parts per million (ppm) of chlorine. To maintain a 1 ppm solution, you add 2 ounces of ultra household bleach or equivalent amounts of other food-grade chlorine for every 1,000 gallons of water. You need more if your water isn't clean to start with.