



Homeowner's Guide to Operating and Maintaining a Septic Genie

Before a Septic Genie was installed in your septic tank, there were no real consequences to putting anything you liked into the tank. The conventional anaerobic (without oxygen or aeration) septic tank is basically a construct to remove, by separation and settling, the solid waste from the water you just used to take the solids out of the house by gravity. It in fact does remove from 70 to 90 percent of the solids when properly maintained. Some minimal digestion of the organic solids takes place within the septic tank but the vast majority of the solids are merely retained within the septic tank until you periodically removed them by pumping. Intestinal bacteria are the main group of bacteria within the conventional septic tank and if they were poisoned or reduced by toxic compounds or household products, you put more in each day when you flush the toilet. The Septic Genie is different.

The Septic Genie bacteria are inoculated at start up of the System and normally maintain a healthy community with little oversight. They are not re-introduced each day by flushing the toilet. Between fifty and one hundred billion of additional lab clean spores are introduced when the bacteria bag is replaced as part of you doing the annual maintenance. Unlike a conventional anaerobic septic tank, the Genie bacteria digest the solids within the septic tank, thus removing the solids from the waste stream and dramatically reducing the need for pumping.

The Genie bacteria are robust and are capable of adapting to a wide variety of conditions and moderate abuses typical of how a modern household uses a septic system. But, the Genie bacteria do best when care is given in what you put in your septic system. Toxic conditions have not been encountered in any Septic Genie installations to date. Should toxic conditions occur, we can instruct you on how to easily restore the system to full function.

A good rule to follow when in doubt about putting something in your septic system is, "If you won't put it in your mouth and swallow it, don't put it in your septic system." There are household products we use in our modern homes that we won't put in our mouths to be swallowed but will not typically harm a septic system with a Genie unit installed. The following guidelines should be followed after the installation of the Septic Genie. These guidelines are within the normal suggested septic system guidelines for your standard conventional septic system.

1) The Septic Genie unit can be damaged or clogged by non-biodegradable items or materials that enter the septic system, including but not limited to personal latex products, rubber gloves, any items made of rubber, latex, plastics or metals, sand or

soil from non water tight septic tanks, etc. It is important to keep such items out of the septic system.

2) Toxic household cleaning products or chemicals should not be allowed into the septic system in quantities capable of reducing the biotic health of the Genie bacteria. Normal household cleaning products like Comet Cleanser, Tide Laundry Soap, Cascade Dishwasher Soap, Palmolive Dish Washing Soap, to name a few, and typically purchased at local supermarkets, can normally be used. Cleaning products containing disinfectants, pesticides or make claims they kill bacteria should be avoided if possible. Use all cleaning chemicals sparingly and follow manufacturer's instructions.

3) Laundry soaps and detergents with bactericides should also be avoided. Laundry should be spaced out over the week. Don't have a laundry day. If bleaching is necessary, try and use non- chlorine based bleaching products. If possible, do one load a day when using bleach. If two loads using bleach have to be done, do one in the morning and one in the evening. This allows for dilution of the bleach and reduces the toxic affect of bleach on the Genie bacteria.

4) By labeling products "natural, organic and biodegradable" does not mean they aren't highly toxic and will not kill bacteria in a septic system. Toxic compounds are found everywhere in nature.

Concentrating toxins isolated from living organisms and adding these toxins to household products, while labeling the products with the above designations, still means they are toxic. Remember, Rattlesnake venom is "natural, organic and biodegradable" and is very toxic. Read the labels carefully and avoid products that claim to "kill bacteria".

5) Additional toxic materials that should not be allowed in a septic system include, but are not limited to, automotive products, petroleum products, pesticides, paint or paint thinner, solvents, etc.

6) Water softeners may cause problems for the Genie bacteria if the backwash discharges into the septic tank. The problem is the PH of the tank liquid effluent rises do to the introduction of salt in the backwash. The concentrations of salt can reach levels that are toxic to all bacteria. Remember, salt is a preservative and that means kills bacteria that spoil food or eat organic matter. Should this become a problem, there are alternatives to discharging backwash into a septic tank.

7) Prescription drugs, especially antibiotics, chemotherapeutic and immune system suppression drugs can have a devastating effect on any bacteria community within a septic tank including a Genie unit. These are powerful chemicals that are toxic to any bacteria species. You should, within five days of commencing the use of these types of drugs for more than a 10 day period, contact Septic Genie for consultation. It may be necessary for you to inspect the Genie in the septic tank frequently for a signs of toxicity. Should a toxic condition occur, there are methods for adapting the installation to overcome most drug produced toxic conditions.

8) Should there be a power outage of 4 to 6 days where the air pump is not working, the Genie bacteria will survive without problems. Should the power remain out for a longer periods, contact Septic Genie for advice.

9) If you leave your house unoccupied while on vacation, or for any extended period up to two months, or if the Genie installation is in a septic tank serving a vacation home that is periodically occupied during a vacation season, leave the air pump operating. The compost in the bacteria bag will retain an active community of Genie bacteria for several months when the house is unoccupied. Upon your return and re-use of the septic system, the Genie bacteria will begin to rapidly multiply, exit the bacteria bag, re-colonize the Genie unit and the Septic Genie will function as before.

10) When a vacation home is closed up after the vacation season, unplug the air pump. When you start to use the vacation home the next season, get a new bacteria bag, replace it and plug in the air pump. The Septic Genie will restart without additional oversight.

If there are additional questions, contact Septic Genie by phone, fax or email. See the Septic Genie website for contact information.