

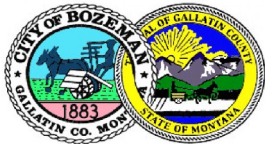
Septic System Additives Questions and Answers

Septic tanks are biological units for the treatment of wastewater. Like all biological systems, they are complex and susceptible to occasional upset. No one has demonstrated a “magic pill” approach to prevent this.

The best approach to keeping a septic system healthy is to take care what goes down the drain and do not neglect periodic pumping and inspection of the system.

In Gallatin County septic permits have been required since January 1, 1966; if a septic was installed after that date we should have a permit on record.

If you have any questions or concerns regarding your septic system please feel free to contact us.



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References:

Montana State University Extension Service
Septic System Inspection and Troubleshooting - MontGuide 9304
Septic Tank and Drainfield Operation and Maintenance - MontGuide 9401
Gretchen Rupp, Environmental Engineer/Specialist, MSU Extension Service

What's in the additives that are advertised?



Inorganic additives are generally strong acids or alkalis. They are sometimes marketed on the basis of their ability to open clogged drains - they have the same active ingredients as popular drain cleaners.

Organic solvents are the same chemicals that have been used as household “cleaning fluid”. These products give off fumes, and the package includes warnings against breathing vapors.

Biological additives are mixtures of enzymes and harmless bacteria with a stabilizing agent to enhance product shelf life. Some biological products include yeast cultures.

Is there any reason to be cautious of commercial additives?

- Both the inorganic additives and the organic solvents are definitely harmful.
- Your septic tank is a biological system - it treats household wastewater by breaking it down using bacteria and other microbes.
- Strong acids and alkalis interfere with the activity of the microbes, and in high doses; can kill them and sterilize the tank for days at a time. This means raw sewage goes directly to the drainfield, where it can clog the soil and set the stage for failure of the drainfield. Repeated doses of acids or alkalis can also corrode the plumbing and the septic tank itself.
- Organic solvents are effective at cleaning grease from pipes, but they too are toxic to the septic microbes. What's worse these solvents pass through the system essentially unchanged, leach into the groundwater, and can form a plume of hazardous waste for which the homeowner is liable.



Can additives alleviate the need to pump my tank or fix my system if it's suffered and upset?

Septic tanks capture solid matter so it doesn't move on and clog the drainfield. Wastewater from every household contains material that cannot be biodegraded, soil washed out of clothing in the laundry for example.

If solids are not building up gradually in your septic tank, it is not working properly. A rough rule of thumb is that a properly sized septic tank needs to be pumped every three to five years. Small families served by a large tank may be able to pump less often than a large family due to the wastewater generated.



Septic tanks occasionally suffer an "upset", so that the microbes are destroyed and the wastewater goes untreated. This can happen when a large quantity of a powerful cleaning product (i.e. bleach) is flushed into the tank or when the home is unoccupied for a long period of time and receives no fresh wastewater.



When conditions return to normal the septic tank re-establishes itself within a few days. There is evidence to suggest that the biological additives can help speed this re-establishment somewhat.

What about using one of the biological additives on a regular basis, just to keep the system operating smoothly?

There is no evidence to show whether or not additives improve the performance of full-sized septic systems over long term. If your septic is not being stressed, it is unlikely that these products offer any benefit to you.

The amount of biological material that you would add with each dose of product is tiny compared to the amount of material (enzymes and bacteria) already present and working in your septic tank.

How can I keep my system working smoothly and minimize the amount of maintenance it needs?

- Don't put toxic chemicals down the drain. These include solvents, paints, varnishes, waste oil, weed killers, insecticides, and photographic chemicals.



- Flush strong household cleaning products down the drain slowly, with copious amounts of water.
- Keep grease and fat out of the kitchen drain.
- Sanitary napkins and tampons, paper towels and facial tissues, condoms, plastic items and kitty litter should go out through the garbage, not the septic system.



- Conserve water inside the house by repairing leaks as soon as they develop. Consider replacing old showerheads, faucet aerators and toilets with new water efficient models. Insulate hot water pipes.



- The less you use your garbage disposal, the better your septic tank will work.
- The frequency with which you will need to pump your septic tank depends on three variables:
 - * The size of your tank,
 - * The number of people in your household,
 - * The volume of solids in your tank.



- It is recommended that you have your septic tank pumped every three to five years. Insure the pumper removes all the solids and scum.