Toilet Chemicals for RVs

In our seminars and vendor booth, we hear lots of wild stories about “recipes” for homemade toilet chemicals to use in your RV. It just sounds nuts to me that anyone would attempt to make or create toilet chemicals for any reason. Most tell us they do this to save money. So, let’s take a look at two things... saving money and toilet chemicals. This information will make your life easier and save you money. That’s a good thing.

Saving Money on Toilet Chemicals

I checked four different brands of RV toilet chemicals online and found that the average cost was very close to $1.00 every time you put toilet chemicals in after dumping your tanks. Most of those I checked were sized for a 40-gallon black tank.

For discussion purposes here, let's assume you can last one week before dumping. This would average dumping 52 times per year and, at a $1.00 chemical-cost, that would be an annual toilet chemical cost of $52.00.

How do you recover or make up for that expense? Simple. Just boondock two nights per year. With an average nightly campground fee of $30.00, two nights of boondocking will save you $60.00—enough for a one-year supply of toilet chemicals and you’ve got eight bucks left over! Problem solved and you no longer have to mix your own.

Toilet Chemicals

Your black tank works very much like a septic tank does for a house. Both catch and hold raw sewage. You physically dump (empty) your RV’s black tank but the home septic tank slowly leaches (drains) into the earth—it empties itself—again, slowly.

Both your black tank and the septic tank will work more efficiently with what is commonly called “toilet chemicals.” Toilet chemicals are bacteria and enzymes—designed to break down solids and control odor. The RV toilet chemical industry
derived much of its early info from the home septic system industry (we had home septic systems long before we had RVs).

Toilet chemicals are found in three “groups,” commercial RV products, commercial home-septic-system products, and homemade concoctions. What follows is some info on all three.

A. Commercial RV products… are sold all over the country and come in liquid, crystal, and tab (drop-in packet) form. They are sold under numerous brand names. All seem to work pretty well and the major real difference is convenience—it’s easier to drop the tab in than to pour in the liquid plus there is no splash. However, the typical RVer tends to use what their friends recommended. With the all products, you still get an occasional odor. These products are readily available at RV outlets.

B. Home septic system products… come in liquid and crystal (like instant coffee). The most common is Rid-X® and this stuff is really concentrated—you use 10 ounces in a 1,500 gallon septic tank! Rid-X works and will work in RVs, too. Rid-X is not sold at RV outlets—only in the home-chemicals section of your local store.

C. Homemade concoctions… are just that—somebody, somewhere, thought up the “recipe” and likely tried it. If it seemed to work, so be it—all of a sudden it was a miracle product—sort of a “Look, Ma, I’ve invented a new toilet chemical!” moment.

We have had seminar attendees tell us (and the crowd) that they use Pine-Sol, yeast (the kind for cooking), various oils (olive, vegetable), a particular brand of dishwashing detergent, and other stuff in their black tanks. One person was convinced that his mixture of a powdered water softener and laundry detergent was the magic elixir of toilet chemicals and the softener would make the tank walls slicker so that sewage would just “slide” off easily and the detergent would just “wash” it away (Sorry, I’m NOT making this up.).
Another person said he used a 1/2-cup of bleach in his tank. (Remember, your RV system is simply a septic system that is in a vehicle and therefore, smaller than the one at home. Adding bleach will kill off the bacteria and enzymes thus destroying their ability to break down solids and control odor.)

The three things we have noticed about the homemade concoctions is (A) the lack of consistency—i.e., your recipe is different from my recipe, (B) the potential exists for the concoction being detrimental to the physical system (seals, valves, etc.) because no group every tested it long-term, and (C) nobody but you uses it.

The black tank craves water - the more the better. A non-caustic soap will not interfere with the type of bacteria used in toilet chemicals. A caustic soap (such as the soaps for dishwashers) will destroy the bacteria. While it doesn't hurt anything, there's no research whatsoever that it helps either—only anecdotal. The RVers that use the Pine-Sol and other home concoctions will generally swear by their recipes and tell others. After all, they tell me.

**Rid-X for your RV’s Black and Grey Tank**

We have a 56-gallon-each black and grey tank in our motorhome. We use two capfuls of liquid Rid-X in the black tank and one capful in the grey tank. These are carefully measured. Please note that frequently, what smells like a sewer odor is actually coming from the grey tank. In the five years we have been using Rid-X consistently, we have eliminated virtually all odors. Use the Rid-X liquid, not the crystal stuff—it’s too difficult to measure an amount that small in the crystal form.

Whatever method you choose, add plenty of water. I recommend 4-5-6 toilet flushes when you add the chemical.

To verify what I was saying in my seminars, I called Rid-X customer service (800-228-4722—the number from their website) and was told the following...

- Rid-X is designed specifically to break down solids—that’s one of the primary things it does.
• Rid-X is not designed for “portable toilets”—like those used at a construction site. While I agree that we take our toilet with us in our motorhome, it is not considered to be a “portable toilet."
• Rid-X is fine for RVs and will, in no way, harm them, or seals, or valves.
• I told the customer service rep that one person said that Rid-X could splash up on your exposed rear end and could harm you (Yes, the guy stood up and said this.). The customer service rep had no information on damage or harm to your exposed rear end. I can attest that I have occasionally splashed a bit of Rid-X onto my fingers with no harmful aftereffects. My fingers are still attached—thankfully, so is my rear end.

My strong suggestion is to not add the Rid-X (or any other toilet chemical) while sitting, exposed, on the toilet. It’s much easier to add it while standing up.
• The customer service rep did agree with me when I said that we used Rid-X in our grey tank to control the occasional odor.

If there was a downside to our conversation, it is that Rid-X does not stay in the black tank long enough to complete the process of breaking down solids but neither does any other chemical. In a “home septic tank, it might take months to completely dissolve solids—and that’s fine. However, Rid-X starts work within 3-4 hours and continues until you dump—so it has some effect—to what extent depends on how long before you dump.

My consistent recommended amount of Rid-X is two capfuls (using the cap on the Rid-X bottle) for the black tank and one capful for the grey tank for tanks about 50+ gallon capacity. If you have smaller tanks, then use proportionally less. This amount was calculated in this manner...

For a home septic system, the Rid-X company recommends 10.5 ounces of Rid-X in a 1,500 gallon system. That equates to two (2) teaspoons of Rid-X in a 50 gallon holding tank (the measured kitchen teaspoon—not the typical tableware you stir your coffee with). The Rid-X cap happens to be a dead-on one-teaspoon measure (luckily).
An Expensive Rid-X Story

A personal story… My grandson ended up away from home attending a tech school. The family found a large fifth wheel, dirt cheap, in pretty good shape, and bought it for him to live in it since he would be there for 18 months. He’d never spent a night in any RV, period.

I was going through some long-distance maintenance stuff with him on the phone and emptying the tanks was part of the info. I told him exactly how to use and measure Rid-X and that one major advantage to him was the cost savings when compared to the typical RV toilet chemicals.

About six weeks later, he called and said that he thought the Rid-X was pretty expensive and wanted to know if I had other suggestions. I thought this was odd so started questioning him about using it.

I found that each time he dumped the black tank, he poured the WHOLE bottle of Rid-X in!!!

The moral of this story is… don’t do that.

Wrap Up

Why the push for Rid-X? Simply, it works—and no, I do not have any financial interest in that company at all. Is it better than your personal concoction? I don’t know. Has it been tested? Yes, for nearly a century in home septic tanks. For RVs, I know of three long-term tests. One friend/fulltimer has used it for about 4 years, another for about 7 years, and I’ve used it for 5 years—all consistently and to date, no negative results. I recommend you try it.