

**What is the Shelf Life of Fuel Right?**  
or  
**Why Do I Have White Solids in the Bottom of the Bottle?**  
or  
**Is My Fuel Right Still Good To Use?**

Good questions without simple answers.

Fuel Right is totally unique among fuel treatments. It works better at defeating sludge and fouling, fuel line freeze-ups, and tank corrosion than does any other additive - by far! It does this because it contains a very unique combination of filming amines. These are complex chemical molecules that come with one known down side: They react with moisture (water) over time and change to less soluble amines with higher freezing temperatures. It is not any one factor alone that determines how fast this occurs, but rather a combination of water presence, time, and temperature.

Fuel Right stored in original sealed steel drums will stay unchanged for a long time because no water can enter the scene. Product stored in PET plastic bottles changes over time because moisture can penetrate the walls of the bottle. We have tried other available plastics but they are either incompatible with Fuel Right or are prohibitively expensive. Glass bottles and metal cans work well but are too expensive to buy and to ship – and most people say they wouldn't want to handle glass bottles anyway. The newer 6-ounce bottles (vs. 8-ounce) and 24-ounce bottles (vs. quart “whiskey” bottles) are a step in the right direction because they have thicker walls that will slow down the moisture permeation – but not eliminate it.

Product stored in our PET bottles, when freshly made, is totally clear and has a freezing point below -30° F. If stored at normal room temperature of about 70° F and low-to-moderate humidity, no significant changes will occur within, say, a year. After that it might start to show some whitish particles in the bottom and might freeze at about 0° F or a little above. This product is still very useable.

If stored in a freezer, the product will remain essentially unchanged for several years. If stored in a refrigerator the product is essentially unchanged after 1-3 years. If stored in an “oven”, however (e.g. a closed steel shed or the back of a service van in the summer), significant changes may occur within weeks.

The rule of thumb: if the product is liquid at room temperature, it is still good to use. If whitish solids remain at 70° F product temperature, some of the amines are no longer available to do their job, and the product is somewhat less potent than when new. The floating solids will not otherwise cause problems provided there is a filter in the fuel system to catch them.

**The bottom line:** Store Fuel Right in a cool, dry location as indicated on the box. Buy enough to last about a year or less. If it is stored in an “oven” over the summer, expect it to solidify in the bottle on cold winter months. In that case, warm it just before use.

Incidentally, the Fuel Right winter products (Cold Flow, Winter Diesel, Winter 4K, etc.) are less likely to have this aging issue - but they “freeze” in the container at about 12-16° F even when new, so have to be kept somewhat warm on cold winter days in order to pour.