

Fuel Additives



FAQs

Q: How does water find its way into fuel tanks?

A: The typical way water can accumulate in fuel tanks is from condensation in partially filled tanks. Humidity-laden air is drawn thru the tank vent at night, allowing the water vapor in the humid air to be absorbed into the fuel (this is especially true with oxygenated fuels). The following day, increased temperature expands the remaining air in the tank, forcing it out the tank vent. That night, lower temperature contracts the air in the tank, drawing in new humidity, and the process starts all over again. Another way for water to enter a fuel tank is refueling from a contaminated storage tank; a third is from rain or wash-down water leaking through a loose or damaged filler cap.

Q: What harm can water do in a fuel tank?

A: Water, being heavier than fuel, sinks to the bottom of the tank, collecting at the lowest point. As water continues to build up, it can begin to corrode metal tanks, but even worse, it can accumulate enough volume to reach the bottom of the intake line going to the engine. Once this occurs, the fuel pump intermittently will draw in water which will ultimately end up in the engine. This happens as the boat changes angle and the water sloshes back and forth in the tank. This situation causes water to infiltrate fuel lines, fuel pump, carburetor or injectors, and ultimately in to the engine, causing rough running, power loss, and even engine shutdown. Assuming you're lucky enough to get back to the dock, left unattended, corrosion will begin in all fuel system components, causing further damage.

Q: How can the problem be controlled?

A: First, maintain all fuel tanks a full as possible (topped off) to keep condensation to a minimum. Second, purchase fuel from a reliable source to ensure a known quality. Finally, check fuel filler gaskets for damage, and be sure the cap is on and properly tightened to prevent water seepage.

Over time, however, most boats and especially PCW's will pick up some water in their fuel tanks. Once water is detected either by an engine running rough, inspecting a water separator/filter, or by using MDR's Water Probe Indicator, it should be removed as soon as possible. Other than draining the tank (always a dangerous task), there are several water absorbing products on the market which should alleviate the situation. The most widely accepted and best selling product for removing water from fuel tanks is [MDR's WATER ZORB™](#). Available in formulas for gas and diesel fuel, [MDR's WATER ZORB](#) actually disperses and emulsifies water into the fuel, allowing it to burn through with no ill effects.

[MDR's WATER ZORB](#) CONTAINS NO ALCOHOL OR METHANOL.



Q: Does [MDR's STOR-N-START](#) work with oxygenated gasoline?

A: [MDR's STOR-N-START](#) fuel stabilizer will stabilize reformulated or oxygenated gasoline (RFG) at the same dilution rate of 1 oz. to 5 gallons. Fuel storage will be maintained equally well for gasoline with or without oxygenation. In fact, because of the much quicker degradation of oxygenated fuel (in some cases 45-60 days), [MDR's STOR-N-START](#) is being sold throughout the summer season in parts of the country that use RFG fuel. And like all MDR fuel additives, [MDR's STOR-N-START](#) contains no alcohol or methanol.

Some other interesting facts about [MDR's STOR-N-START](#) :

- Has maintained the confidence of boaters for 25 years
- Has been performance tested and verified by the marine testing institute
- Will stabilize RFG gas at the same dilution rate as non-oxygenated fuels
- Available in gasoline and diesel formulations
- Comes in many different sizes for specific applications:
- 7 sizes for gasoline from 4 ounce to 55-gallon drums
- 3 sizes for diesel from 8 ounce to 1 quart
- Special Crankcase blend available
- STOR-N-START Fogging Oil provides complete winterization solution
- 15 gallon drum is best buy for boatyards, saving approximately 18% over the 1 gallon price
- Dilution rate of 1oz/5gal for gasoline, and 1oz/12gal for diesel fuel.

Here's how MDR's STOR-N-START compares to the competition:

Container Size	MDR's STOR-N-START 1 oz. treats 5 gal. of gas	COMPETITOR A 1 oz. treats 2.5 gal. of gas	COMPETITOR B 1 oz. treats 3 gal. of gas
4 oz.	20 gallons	10 gallons	N/A
8 oz.	40 gallons	20 gallons	24 gallons
16 oz.	80 gallons	40 gallons	48 gallons
32 oz.	160 gallons	80 gallons	96 gallons
Gallon	640 gallons	320 gallons	384 gallons
15-gal yard size	9600 gallons	N/A	N/A
Amount required to treat 100 gallons of gasoline	20 ounces	40 ounces <i>Needs twice as much as MDR's STOR-N-START</i>	33.3 ounces <i>Needs 66.5% as much as MDR's STOR-N-START</i>

[MDR's STOR-N-START](#)MUCH MORE COST EFFECTIVE