

## 55-gallon Plastic Barrels / Drums - Food Grade Sequim - \$30 (Sequim - Diamond Point)



Perfect for emergency drinking water. 35 inches high X 23.5 inches in diameter. In Black color only.

Specification available if needed. \$30 each. Price is firm. (exact same drum costs \$117 at Home Depot) Thank you for not asking

Used Once and thoroughly cleaned. Prior material is non-toxic and very water soluble so no residual material is left in these drums - like new condition. A MSDS is available if needed.

Drums can be used for Emergency Drinking Water, Storage, Rain Barrels, To Float a Dock, Dog House (Kits are available on the web), Planter, etc.

Bungs to provide airtight seal are provided. (One fine thread 2" NPT -- One coarse thread 2" Buttress). Bungs can be removed but the lid of the drum does not come off

**\*\* Taking orders \*\***      Delivery available for a nominal fee.

Please call or text Dave: 907-460-0506    or email: [mahoganyak@gmail.com](mailto:mahoganyak@gmail.com)  
(This Craigslist ad is posted with Dave's permission 03/25/25)

# 55 GALLON EMERGENCY WATER STORAGE

## How cold does It have to be to freeze an *outdoor* 55-gallon water barrel?

For a rain barrel or any water barrel to freeze, temperatures typically need to be consistently below 32°F (0°C).

Example: after 10 days of 23°F / 5°C (not likely in our area), liquid volume would be down 20% of the total (in the core) and the expansion rate would be 8% of the volume. In this scenario you would fill the tank to only 90% capacity to allow room for expansion. This is not a guarantee the tank will not crack due to ice expansion in the “up” direction.

## How to prevent a 55-gallon *outdoor* plastic drum water from freezing

One of the best and most cost-efficient ways is insulation. There are several ways you can insulate your drum to prevent the water inside from freezing:

### 1. Wrapping/Covering the Drums:

Wrap or cover them with an insulating material like bubble wrap, fiberglass, mineral wool, ceramic fiber or spray foam.

Before you purchase any insulation, you should measure the size of the tank. You'll need the diameter as well as the height of the vessel. You'll also need to measure the surface area of the top of the tank. Add these together to get an estimate in square footage of how much insulation wrap you'll need. In these cases, it's best to overestimate rather than underestimate.

Note: Do not add any insulation to the bottom of the tank. Remember from science class that heat rises.

Installing the insulation is a simple matter of wrapping it around the tank and securing the blankets with straps, which usually come included with the material. You should also take this time to insulate any pipes running to or from the tank, be they for plumbing or rain harvesting. These pipes will freeze a lot quicker than your water tank, so you'll need to wrap them, at the very least, in foam insulator. A better idea is to purchase some heat tape or cable, which applies a low voltage of electricity along the length of the pipe, preventing frost.

### 2. Heating Appliances & Accessories:

Invest in heating appliances or electric blankets that you can place directly in or around the barrel itself. These appliances will keep your barrel evenly temped at all times. If using electric heaters, make sure they are certified weatherproof - this will ensure that their temperatures remain regulated no matter what elements they come into contact with outside.

Option #1: Buy a submersible electric water heater, which delivers current from a heating element to a conductive material like steel, thereby heating the water around it to prevent ice from forming. It's a pretty simple idea and not very costly to install.

Option #2: Buy an electric heating blanket, which combines the zero-energy benefits of insulation with the direct heat of a submergible heating element. These handy blankets wrap around the tank like a jacket and generate heat from an electrical source. They come in a variety of shapes and sizes and offer temperature controls to precisely regulate temperatures in response to weather conditions. They're more expensive and require more upkeep than insulation material, and you'll need a power supply to run them, but they are an effective way to prevent your tanks from freezing.

Option #3: Install a heating system that heats the tank from the exterior. These typically sit beneath the tank and apply a larger amount of energy. They're big and complicated and can be difficult to install—not to mention costly. Most experts only recommend these systems for very large water storage tanks with a high risk of freezing.

### **3. Location, location, location:**

Option #1: Store them away from areas with high winds as drafts will cause unwanted shifts in temperatures leading to rapid cooling and potentially freezing conditions given enough time. Strategically place them in protected spots on south facing walls (that receive plenty of direct sunlight) which provide optimal insulation levels for 55-gallon drums all season long.

Option #2: Bury your tank. This isn't always an option but underground tanks enjoy more stable, consistent temperatures, even throughout winter. They're harder to access, pricier to install, and more difficult to maintain, but they'll get you most of the way there in terms of frost-prevention.

The following charts may help you decide what type and where to store your new emergency water storage tank(s). Remember, if they are stored indoors (garage, shed, etc.) you will most likely not require these measures.

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## Tips to Reduce Freezing Risk

If you can't afford either insulation or a heating system, or if your tank is in a climate with minimal risk of freezing, there are some steps you can take to reduce the chance of your water freezing up.

### 1 GET AS BIG A TANK AS YOU CAN

Small volumes of water freeze faster than large volumes. Use this basic law of nature to your advantage and get a tank that is slightly larger than you think you might need.



### 2 AVOID SQUARE OR RECTANGULAR TANKS

For the same reason that larger tanks take longer to freeze, rounded tanks insulate better than similar sized rectangular tanks. Why? Because they have smaller surface areas and, thus, less room for heat to escape.



### 3 MONITOR THE TANK FOR CRACKS OR LEAKS

This applies to the network of pipes running to and from the water tank as well. Any leaks that form will accelerate the pace of heat loss and quicken the freezing process. You want to make sure your water system is all buttoned up before the first frost arrives.



### 4 AVOID FLAT TANK COVERS

Don't give your tank the chance for ice to form anywhere around it. A flat cover dramatically increases the likelihood of ice forming because rain, snow, or overflow that accumulates on the surface has nowhere to go. If the cover is sloped, the water will just slide off to freeze somewhere else.



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## KEEP WATER MOVING

Moving water is more energetic and, thus, requires colder temperatures to freeze. Preventing frost can be a simple matter of jostling the tank from side to side on particularly cold days, installing some sort of flow system to keep water agitated and moving, or periodically flushing or plumbing system, if the tank is hooked up to a pressurized water line you can run the taps to keep water moving through the pipes.



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## BUY A PLASTIC TANK

There's no significant difference in the rate of heat loss between a plastic and metal tank. But in the event that water does freeze, plastic can better withstand the force of expansion. Metal, on the other hand, is more likely to crack when water turns to ice. Also, because plastic is cheaper and more malleable, you have more options for choosing the right shape and size to suit a water storage system that can survive the winter.





# Water Storage Container Comparison



Container	Amount	Advantages	Disadvantages
Underground Tanks	Hundreds to thousands of gallons	Will not freeze Out of the way Great for operational security Lots of water in small space	Expensive Requires excavation equipment to install
Above Ground Tanks	Hundreds to thousands of gallons	Some can be stored in garage Lots of water in small space	Expensive May freeze outdoors
55 Gallon Barrel	55 gallons	Used barrels available Lots of water in small space	Heavy (450+ pounds) May freeze outdoors
30 Gallon Barrel	30 gallons	Lots of water in small space	Heavy (250 pounds)
15 Gallon Barrel	15 gallons	Possible to transport	Heavy (125 pounds)
Wheeled Water Tank	8-10 gallons	Sturdy wheels for portability Refillable	Expensive
5 Gallon Container	5 gallons	Available in a stackable style Easier to move (42 pounds) Can install a spigot which makes it convenient to use	May take more floor space than larger containers
WaterBricks	1.6-3.5 gallons	Durable, portable, stackable Freezes and thaws well	Expensive
Mylar Water Bags <i>Heavy duty boxes with metalized 5 gallon bags</i>	5 gallons	Portable (40 pounds) Can be stacked three high	Protect cardboard from water Some boxes can be converted to a portable toilet
Reclaimed Juice or Soda Bottles	½ - 1 gallon	Free, convenient, portable	May harbor bacteria if not cleaned thoroughly
Commercial Water Bottles	.5 – 1 liters	Convenient, disposable, cases stack nicely	Expensive Concern about plastics Damaged by heat
Canning Jars	Pint or quart	Non-permeable, does not leach into water	May break