

## Autumn Tasks - How to Empty Your Swimming Pool or Spa Wisely

The chlorine in your pool or spa provides benefits, but must be handled wisely when the water is emptied.

Chlorine is one of the most common chemical additives used to control bacterial growth in swimming pools. With proper chlorination, swimmers can allow pool water to contact the skin and incidentally swallow some pool water with little fear of infection. As beneficial as chlorine can be in controlled situations, its release into the environment is damaging.

Even small concentrations of chlorine can harm aquatic life. Chlorine can be very toxic to fish, small crustaceans, and plankton. 1mg/L or less chlorine has a high acute toxicity to aquatic organisms (US EPA). The federal Clean Water Act prohibits the discharge of pollutants to the waters of New York.

Storm sewer systems are designed to handle runoff from rain and snow only. Storm sewers pipe water directly into receiving rivers and streams. If this water contains chlorine, it can kill aquatic life.

Swimming pool water can be discharged into a sanitary sewer system safely. De-chlorinate pool water before discharging into a sanitary sewer line if chlorine in the pool water is reduced to undetectable levels (<0.1 mg/L) before draining.

### Options for removing chlorine:

- Simply stop adding chlorine to your uncovered pool and wait. Sunlight will help to naturally dissipate the chlorine within 10 days.
- During that time, use a swimming pool test kit to measure chlorine and pH (should range between 6.5 and 8.5)
- Chemically de-chlorinate the pool water. Chemicals that will quickly remove chlorine are available through pool and spa care vendors.

A pool test kit will help you to monitor chlorine. Follow the chemical use, handling, and storage instructions carefully, as some de-chlorination products can become dangerous when brought into contact with other pool maintenance chemicals. Discharge de-chlorinated pool water to a sanitary sewer system if possible.

Seek the advice of a licensed plumber concerning the appropriate flow rate for pumping water into the plumbing fixtures. Be prepared to call a plumber immediately if draining the pool causes a back up to the sanitary sewer system.

**Do not discharge pool water to a private septic system.** Hydraulic overloading may permanently damage the absorption field.

**If pool or spa water must be discharged into a storm drain, road ditch or on the surface of the ground, these guidelines should be followed:**

- The residual chlorine should not exceed 0.1 mg/l (parts per million);
- The pH is between 6.5 and 8.5;
- The water is free of any unusual coloration;
- There is no discharge of filter media
- There is no discharge of acid cleaning wastes
- The discharge will not cause erosion
- The discharge will not cause transport of pollutants such as: motor oil; pet waste; trash and other debris into the storm drain system.



Low flow speeds will help to reduce erosion problems. If discharging into a road ditch, place the hose horizontally into the lowest part of the ditch, preferably flowing onto rock or rip-rap. If discharging onto a lawn or field, flow onto a firm, level surface where water can spread out slowly and evenly. Discharging the water over the course of a few days will reduce erosion potential.

Remember that residual chlorine will kill plants – including lawn turf.