

# Cleaning and Disinfection Guideline for Private Cisterns after a Drinking Water Advisory

## Cleaning Procedure

1. Drain the drinking water cistern completely. Do NOT use a sewage hauler to pump out the drinking water cistern.
2. Wash all internal surfaces. Use a pressure washer with a mild, food-grade detergent to remove all dirt from the interior of the drinking water cistern (see Safety Note below).
3. Examine all seals, surfaces and the floor for signs of cracks and leaks.
4. Rinse the inside of the cistern with potable drinking water to remove the remaining dirt, debris and detergent residue.
5. Discard all rinse water.
6. Follow the disinfection or sanitization procedures below.

## Disinfection Procedure

1. Disconnect all water treatment equipment such as water filters and softeners from the cistern.
2. Fill the cistern half full with potable water.
3. Add chlorine to the cistern to achieve a 20 mg/L chlorine solution strength in the water.
  - If using unscented household bleach (5.25%), add 400 ml (1 ½ cups) of unscented household bleach into the cistern for every 1000 L (220 imp gal.) of water cistern total volume.
  - If using industrial strength chlorine (12%), add 200 ml (¾ cup) of industrial strength sodium hypochlorite into the water cistern for each 1000 L (220 imp gal.) of water cistern total volume.
4. Add more potable water to the cistern until it is full.

5. Run water through the taps until you can smell the chlorine. **Do not run chlorinated water through certain types of water treatment equipment (e.g., softeners, carbon filters, reverse osmosis systems).** For specific information, contact your equipment dealer or the manufacturer.
6. Leave the chlorinated water in the cistern and piping for 24 hours. Water **MUST NOT BE CONSUMED** during this process. This water should not be used for laundry or bathing. An alternative supply of drinking water, such as bottled water, should be used during this time.
7. After 24 hours, drain the chlorinated water from the cistern and flush the drinking water system with potable water.
8. See below for “Disposing of Heavily Chlorinated Water”.
9. Fill the cistern with potable water.

## Disposing of Heavily Chlorinated Water

Flush the tank or cistern by pumping the water through an outside hose. Dispose of the chlorinated water away from grass, shrubs, trees and other sensitive plants until the strong smell of chlorine disappears. Make certain that the water does not enter a natural watercourse.

Do not dispose of rinse water or heavily chlorinated water in an onsite wastewater treatment system.

Consult a public health officer (see below) for acceptable disposal options of significant volumes (i.e. more than household use) of highly chlorinated water.

**Safety Note:**

Do not enter any cistern or tank as there may be dangerous concentrations of hazardous gases or insufficient oxygen that could result in death. All cisterns or tanks should be considered a “confined space,” which poses severe dangers to human or animal life. No one should enter a cistern to perform maintenance unless they are properly trained in confined space entry and properly equipped with the air testing, ventilation and rescue equipment. Proper confined space entry procedures should be used at all times. No matter how clean the cistern or tank may appear, these dangers are not able to be detected by human sight or smell.

The homeowner should only undertake those activities that do not require entry into the cistern or tank. For example, after emptying, the walls may be washed down with a garden hose, wand or a pressure washer, while working from outside the tank. The wash

water can be removed using a submersible pump and discharged into an open outside area. This may have to be done more than once to adequately remove settled material.

The link below provides the contact information for public health officers throughout the province:

<http://www.saskatchewan.ca/live/health-and-healthy-living/provincial-health-system/saskatchewan-health-regions/regional-public-health-inspectors>