

## CLEANING AND DISINFECTING A WATER HOLDING TANK

Delivered water should be potable (safe for human consumption) and obtained from an approved source.

It is necessary to clean and disinfect your water holding tank(s) at least once a year or more often, if required. This is to remove algae (plant growth which produces bad tastes and odours), silt, and bacteria which may be harmful.

### If the Water Holding Tank is:

#### \*Accessible for Cleaning

1. Empty the tank.
2. Scrub or pressure wash the interior walls to remove dirt and grime.
3. Rinse out the tank.
4. Mix a solution of household bleach and water (1 tablespoon or 15 ml of bleach for every gallon of water).
5. Scrub or pressure wash the interior walls of the tank with this solution, and leave it sit for 2 hours.
6. After 2 hours, thoroughly rinse the tank with clean water.
7. Refill with potable water.

\* **Caution is to be taken when using a strong chlorine solution. A water holding tank is a confined space. Under no circumstances should you enter a confined space, unless taking the appropriate precautions (see reverse side).**

#### Not Accessible for Cleaning

1. Ensure the tank is full of water.
2. Add the required amount of household bleach (see table below to the water in your holding tank. If possible, mix the bleach and water.
3. To disinfect the plumbing lines and fixtures, turn the tap(s) on. Once you smell the chlorine odor at each outlet, close the tap.
4. Leave for 12 hours (generally done overnight).
5. Drain the water tank (but not into a septic tank).
6. Refill with potable water.

#### Dosage of Household Bleach (5.25% chlorine) required for the Cleaning and Disinfecting of Water Holding Tanks not Accessible for Cleaning

Tank Size		Amount of Household Bleach to Obtain 50 ppm of Chlorine		
Litres	Imp. Gallons	mL	Imp. Ounces	Cups
277	50	264 mL	9	1
455	100	511 mL	16	2
909	200	909 mL	32	4
1137	250	1136 mL (1.2 L)	40	5
2273	500	2273 mL (2.3 L)	80	10
4546	1000	4546 mL (4.5 L)	160	20
6819	1500	6818 mL (6.8 L)	240	30
9092	2000	9091 mL (9.1 L)	320	40
11365	2500	11340 mL (11.5 L)	400	50

## General Safety Regulations on Confined Spaces Occupational Health and Safety Act

### CONFINED SPACES

38. (1) In this section, "confined space" means a place
- (a) to which or from which the means of access or egress are restricted because of location, design, construction, or contents, and
  - (b) in which a hazardous accumulation of gas, vapour, dust, mist or smoke may be present, or there may be an oxygen content in the atmosphere of less than 18% or more than 23%, and includes an open or closed tank, vat, sewer, pipe, duct, flue, reactor, chamber, and other such spaces, and bilges, tanks, compartments, or cargo spaces of marine equipment.
- (2) A worker shall not enter or be required to enter a confined space unless
- (a) there is a means of egress from all accessible parts of the confined space by a manhole or other clear opening,
  - (b) mechanical equipment installed in the confined space is disconnected from its power source and locked out,
  - (c) all pipes and other supply lines are blanked off or where it is impractical to blank or blind piping containing hazardous substances, written work procedures are implemented to ensure at least equal protection to all workers exposed to the hazard, and
  - (d) sufficient tests are made for oxygen deficiency, flammability, explosive conditions and toxic vapours, in appropriate locations by a competent person who shall record the results of each test in a permanent record, evaluate the tests, certify in writing in the permanent record that a hazard does not exist in the confined space and that there is not a likelihood of a hazard developing while any person is in the confined space having regard to the nature and duration of the work to be performed.
- (3) Where a confined space contains or is likely to contain a gas, vapour, dust, mist or smoke that is toxic or hazardous or has or is likely to have an oxygen content in the atmosphere of less than 18% or more than 23%, the space shall be purged and ventilated to provide and maintain a safe atmosphere, and in addition to the measures and procedures prescribed by subsection (2), a competent person shall be in attendance, stationed outside the confined space, and rescue procedures shall be established and equipment readily available to remove a worker if necessary.
- (4) Where a space to which subsection (3) applies cannot be purged and ventilated to provide and maintain a safe atmosphere, in addition to the measures and procedures prescribed by subsections (2) and (3), a worker entering or required to enter the space shall use
- (a) a self-contained breathing apparatus and a safety harness or other similar equipment to which is securely attached a rope the free end of which is fastened to a solid support and which is held by a person who is equipped with an alarm and is keeping watch outside the confined space, and
  - (b) such other equipment as is necessary to ensure the worker's safety.
- (5) The safety harness, rope, and other equipment mentioned in subsection (4) shall be inspected to ensure that it is in good working order at all times.
- (6) In addition to the requirements of subsections (2), (3), (4) and (5), where the gas or vapour in a confined space is or is likely to be, explosive or flammable, the confined space shall not be entered unless
- (a) the concentration of the gas or vapour does not, or is not likely to, exceed 50% of the lower explosive limit of the gas or vapour,
  - (b) only cleaning or inspection is to be performed,
  - (c) explosion-proof equipment is used.
- (7) Cold work may be performed in a confined space which contains, or is likely to contain, an explosive or flammable gas or vapour where the concentration does not, and is not likely to, exceed 10% of the lower explosive limit of the gas or vapour.
- (8) Where the confined space is a manhole or vault containing electrical equipment, the work shall be
- (a) performed by an electrical utility or an employer specializing in such work,
  - (b) carried out by at least two competent persons,
  - (c) supervised by a competent person,
  - (d) performed in accordance with the code of rules, techniques and procedures approved for work in manholes and vaults containing electrical equipment, and
  - (e) carried out using tools, clothing, and equipment that is adequate and specifically designed for the work being performed.