

Disinfection of a Water Well

Water Treatment for Individuals or Households:

Liquid household bleach (Clorox) contains approximately 5.25% chlorine as sodium hypochlorite. This can be used as a disinfectant when added to the water, mixed thoroughly, and allowed to stand for 30 minutes. The following table is a guideline:

Emergency Disinfection:

<u>Amount of Water</u>	<u>Clear Water</u>	<u>Cloudy Water</u>
1 Quart	2 Drops	4 Drops
1 Gallon	8 Drops	16 Drops
5 Gallons	½ Teaspoon	1 Teaspoon

Disinfection of Wells:

If a well is to be disinfected, it is necessary to know the diameter of the casing, depth of the well, and depth to water. The following procedure is recommended for the process:

1. Pump well water to waste until the water is free of turbidity.
2. Stop pump.
3. Add chlorine solution (see table) directly into well casing until the residual chlorine is at least 50 mg/1 in concentration.
A “DPD” (N, N-Diethyl-P-Phenylenediamine) test should be used for this determination for best accuracy. Test strips using potassium iodide-starch papers are a “second choice”. Other methods of determining chlorine residual are not recommended.
4. Allow well to stand for 30 minutes to permit chlorine to settle in the well, then surge the well by alternately starting and stopping the pump in order to wash down the inside of the casing and dropline with chlorinated water.
5. Open the taps at the distal ends of the water system and at “dead ends” and confirm chlorinated water at these areas. Test for chlorine residual of 50 mg/1. Then close the taps.
6. Let the well stand without pumping for at least 24 hours (minimum of 8 to 10 hours).
7. Pump the well to waste until there is no chlorine in the water. Do not discharge to any watercourse that contains aquatic life.

Disinfection of Well Casing or Water Pipe:

Amount of Chlorine required for disinfecting 100 Feet of Pipe @ 50 mg/L

Diameter of Casing In. (mm)	(70%) Calcium Hypochlorite* (Dry Weight)**	(25%) Chloride of lime (Dry Weight)**	(5.25%) Sodium Hypochlorite (Liquid Measure)
2 (50)	¼ oz (7g)	½ oz (14g)	2 oz (59ml)
4 (100)	1 oz (28g)	2 oz (57g)	9 oz (266ml)
6 (150)	2 oz (57g)	4 oz (113g)	20 oz (0.6L)
8 (200)	3 oz (85g)	7 oz (0.2kg)	2 1/3 pts (1.0L)
10 (250)	4 oz (113G)	11 oz (0.3kg)	3 ½ pts (1.7L)
12 (300)	6 oz (0.2kg)	1 lb (0.45kg)	5 pts (2.4L)
16 (400)	10 oz (0.3kg)	2 lb (0.9kg)	1 Gal (3.8L)
20 (510)	1 lb (0.45kg)	3 lb (1.4kg)	1 1/3 Gal (6.3L)
24 (610)	1½ lb (0.7kg)	4 lb (1.8kg)	2 1/2 Gal (98.8L)

Some authorities recommend a minimum concentration of 100 mg/L. To obtain this concentration, double the amounts shown.

* HTH, Perchloron, Pittchlor, etc.

** When dry chlorine is used, dry product should be mixed with water prior to use.

CAUTION:

Wear protective clothing and gloves.

Use goggles for eye protection.