



Combined Sewer Overflow Technology Fact Sheet
Chlorine Disinfection

Sodium hypochlorite:

Chlorine may also be supplied as sodium hypochlorite (NaOCl), otherwise known as liquid bleach. Sodium hypochlorite can be generated from sodium hydroxide and chlorine, or it can be generated electrolytically from brine. Sodium hypochlorite can be manufactured on site, or it can be purchased in liquid form generally containing 3 to 15 percent available chlorine. Decay of the original product will occur as a result of exposure to light, an increase in temperature, or because of concentration of the compound. Product decay occurs more rapidly at higher concentrations; therefore sodium hypochlorite is typically stored as a 5 percent solution of available chlorine. Sodium hypochlorite should be stored at temperatures below 85 degrees Fahrenheit in a corrosion-resistant tank. Sodium hypochlorite is the most expensive of the three forms of chlorine compounds. It produces a free chlorine residual, and forms chloramines and chlorophenols. Sodium hypochlorite is safer to handle than gaseous chlorine, and can be generated and stored on site.

Calcium hypochlorite:

Chlorine may be supplied in the form of calcium hypochlorite, Ca(OCl)₂, either wet or dry form. High grade calcium hypochlorite contains at least 70 percent available chlorine, and is readily soluble in water. It is a strong oxidizer and is extremely hazardous. Calcium hypochlorite tends to be unstable and therefore should be stored in a dry place inside a corrosion-resistant container in order to reduce product breakdown. Like chlorine gas and sodium hypochlorite, calcium hypochlorite breaks down into free chlorine residuals and will react to form chloramines and chlorophenols. Calcium hypochlorite is more expensive than chlorine gas and will degenerate as a result of storage. Calcium hypochlorite also crystallizes and can clog pipes, pumps, and valves.

More info. @ epa.gov/owmitnet/mtb/chlor.pdf

Available for Installation on
ALL Aerobic Treatment Units
using Spray Irrigation
Call 972-338-5883

Call for Detailed Information

Distributed and Installed by:
Texas Star Aerobic
2150 Valley Ridge Ct.
Suite #120
Highland Village , TX
75077
972-338-5883

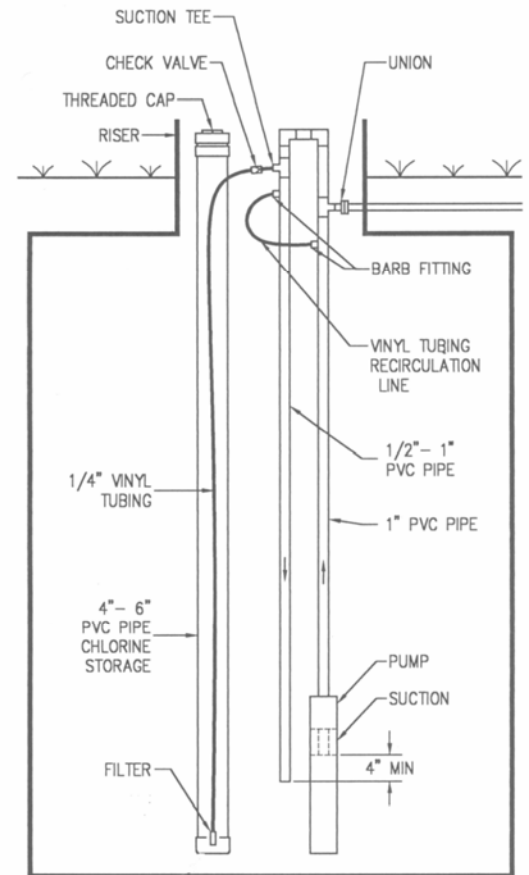
Manufactured by:

Chlorination Station
Patent No. 6,932,912
1514 Dodge Lane
Wallis, Texas 77485



Chlorination Station

Patent No. US 6,932,912
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Lab Results



Samples were taken from 2 different Units, on 3 separate occasions within a 4 month period.

- An economical alternative to Chlorine tablets
- Simple, yet effective
- Easy installation (30 minutes or less on most applications)
- Better disinfection
- Chlorination based on gallons pumped, not on *estimated* daily flow
- Utilizes “Household Bleach” (Sodium Hypochlorite) as the disinfection agent
- Household bleach is readily available, whereas Calcium hypochlorite is difficult to find and expensive
- Sodium hypochlorite is E.P.A. approved for wastewater disinfection

Options Available:

- Low-Level Chlorine Sensor
- Timed Re-circulation Control Valve Assembly
- Large Storage Containers



Average Monthly Cost for a normal residence (4 persons) using household bleach is **\$1.50-\$3.00**

VS.

Average Monthly Cost for a normal residence (4 persons) using Calcium hypochlorite is **\$12.00-\$18.00**

Fecal Count Averages:

Unit #1:

<u>Clarifier</u> (no CL2)	62,667
<u>Pump Tank</u> (10-12 hrs. after CL2 injection)	106
<u>Spray Head</u> (during spray cycle)	66.70

Unit #2:

<u>Clarifier</u> (no CL2)	100,333
<u>Pump Tank</u> (10-12 hrs. after CL2 injection)	20.33
<u>Spray Head</u> (during spray cycle)	1.33

*Note:
No Significant change in Ph was found.

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