

Chlorine Shortage

The St. Louis County Department of Public Health has been monitoring the supply shortage of Trichlor tablets, an EPA-registered chemical sold for use as a sanitizer for pools and spas. The shortage of this sanitizer is due to the largest manufacturer of Trichlor closing after a fire caused extensive damage at their manufacturing facility in Louisiana. This affects commercial and residential swimming pools locally and nationwide.

After discussions with local and regional maintenance companies and distributors of Trichlor tablets, it is very likely these tablets will be unavailable for purchase early or midway through the Summer Pool Season as demand will outpace the available supply from the remaining manufacturers of this sanitizer.

The Department advises that commercial and residential pool and spa operators currently using Trichlor make plans now to use a more readily available pool sanitizers for when the supply of Trichlor runs out.

Solutions and Recommendations:

All Pools

- Use online or in person educational resources and training courses to better understand how to safely and efficiently operate pools. If having water tested and receiving a print out of changes to make, add the chemicals that correct the total alkalinity and calcium so the water is balanced. If the total dissolved solids are out of range, partially empty and refill the pool with fresh water. Having these in the correct range will prevent overuse of chlorine and pH adjustment chemicals.
- Check the filter media and change it if needed. Encrusted filtration material that is past its service life can allow water to pass through without removing dirt, oil and debris.
- Maintain balanced water chemistry. A "balanced" swimming pool means keeping the five basic pool water components (total alkalinity, pH, calcium hardness, stabilizer for outdoor pools, and total dissolved solids) within their proper levels using the Langelier Saturation Index (LSI) equation or calculator for balancing pool water. Information is available online, in mobile phone apps and in CPO/AFO and similar pool operator training manuals. Water balance is constantly changing due to bather load and weather so weekly testing and adjustment is necessary to avoid excess use of chemicals.
- Prohibit people who have had diarrhea in the past 2 weeks from using pools, spas, spray grounds or other treated/filtered recreational bodies of water. These people may still shed pathogens in the water and this can causes illness in other people using the pool.

Commercial Pools

Pool and spa sanitizers that are readily available according to suppliers and manufacturers include Calcium Hypochlorite and Sodium Hypochlorite. Trichlor chemical feeders are not compatible with these other available pool and spa sanitizers. Putting the available sanitizers in Trichlor feeders will cause them to explode. Public Health Staff is available to answer questions regarding chemical feeder safety at pool.dph@stlouisco.com.

- Convert to Calcium Hypochlorite systems. With the excessive amount of cyanuric acid (CYA) in Trichlor tablets, these should not be used on commercial swimming pools because levels can climb beyond 40 ppm in a matter of weeks.
- Convert to Sodium Hypochlorite system if site conditions allow. (Available space in the filter room, access for delivery trucks, conversation with the local fire department or fire protection district about safety and an adequately large storage container.)
- Do not install salt chlorination systems without prior approval from the Public Health Department. Supplemental methods for sanitizing are required for these systems to handle rapid chlorine demand changes from weather and bather loads.

Consider installing a chemical controller to monitor and adjust the chemical levels automatically. Substantial reductions in chemical usage can be achieved by using this equipment.

Consider a secondary means of sanitation such as UV with low pressure lamps. UV with low pressure lamps inactivate viruses, bacteria and parasites without affecting the existing free chlorine in the pool. Removing these health concerns using other methods reduces the amount of chlorine demand while maintaining good water quality.

Consider closing 1 or 2 days per week for cleaning and maintenance. Using water clarifiers and flocculants in conjunction with pool brushing and vacuuming prevents algae or stains and removes organic material, dust, dirt and oils that affect the chlorine demand while maintaining good water quality. Backwash sand filters and clean/replace cartridge filters as necessary to maintain clear water.

Require everyone to shower/rinse off prior to entering the water whether they are just arriving or have been at the facility for a while. While showering with soap and without a bathing suit is best, having a deck shower to rinse away sweat, dust and oils prior to entering the water reduces the amount of chlorine demand while maintaining good water quality.

Residential Pools

- Convert to a Saline Chlorination System. An amount of salt is added to pool water based on the number of gallons in the pool. Electricity is used to divide the salt molecule into the sodium and chlorine ions (electrolysis). The chlorine is then free to inactivate viruses, bacteria and parasites for a health and safe swimming experience. Salt is a very safe way to store chlorine around children and pets.
- Monitor the chlorine levels frequently to prevent overuse of chemicals in short supply.
- Brush, vacuum and clean the pool surfaces to avoid overuse of chemicals in short supply. Remove leaves and other floating debris immediately.
- Don't allow pets to use the pool. Remove and prevent waterfowl and other wildlife from entering the pool.