



# Proper Storage & Handling of Swimming Pool Chemicals

Improper storage and use of Pool chemicals causes property damage and numerous injuries each year. For example, a Risk Pool Member stored pool chemicals in a boiler room. Over time, the chemicals deteriorated the boiler. Eventually, the boiler caught fire, destroying the building. Luckily, the fire didn't harm any employees. But that's not always the case. Read the following to avoid becoming a statistic.

## Safe Storage

Some pool chemicals are classified as oxidizers, which can be highly reactive. Reactions can happen when chemicals become wet or are inadvertently mixed with incompatible materials, such as petroleum products. Improperly handled or stored chemicals can also release hazardous vapors. Some chemicals self-react and naturally decompose over time. Chlorine gas, which can be highly corrosive to piping and other metal objects, is a by-product of this reaction. In fact, some chemicals are actually packaged in "breathable" containers to avoid pressure buildup while in storage.

## Safe Handling

Exposure to chemicals can cause injuries to skin, eyes, or respiratory or digestive systems. Some chemicals directly affect the skin through chemical dust or fumes. Employees should be trained on to follow written procedures for handling and storing pool chemicals.

An employee who handles and stores pool chemicals should consider the following:

- Pool chemicals should be safely stored and handled according to manufacturer and industry standards.
- Facilities should be properly maintained and routinely inspected.
- Chemicals should be kept in designated areas for chemical containers to avoid exposure or contact with water; bagged chemicals should be stored off the floor.
- Avoid improper chemical mixing and storage; for example, don't store acids and chlorine next to each other, and liquids should not be stored above dry chemicals.
- Review chemical handling tasks and storage arrangements to identify and avoid situations where chemicals could be improperly or accidentally mixed.
- Ensure chemical storage containers are properly labeled.
- Avoid storing chemicals near sources of heat or combustion – including near combustible or flammable materials, near transformers, heaters, or other potential heat sources, or near petroleum products or gas-powered equipment.
- Protect employees against exposure by following manufacturer instructions and relevant Safety Data Sheets for selection of appropriate personal protective equipment.
- Plan for emergencies and work with local first responders to establish proper emergency response plans.

## Helpful Resources

The Texas Department of State Health Services (DSHS) oversees the operation of public swimming pools in Texas. Applicable laws, rules, and regulations are available at on the [Texas DSHS website](#) and the current rules and regulations as of January 1, 2023 are available [here](#). The Centers for Disease Control and Prevention (CDC) maintains information for "[Aquatics Professionals](#)," including free posters for Pool Chemical Safety [Use](#) and [Storage](#) among other topics. Additionally, the CDC oversees the [Model Aquatic Health Code](#) (MAHC). Sections 5.9.1 and 5.9.2 specifically address chemical storage and handling. The [Chlorine Institute](#) has a free [video](#) on pool chemical safety. The United States Environmental Protection Agency's [Safe Storage and Handling of Swimming Pool Chemicals](#) was used as a resource for this article.

## Additional Resources

TMLIRP TIPS: [Is Your Splash Pad Safe?](#)

TMLIRP [Aquatics Risk Management Manual](#) free video

