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From Experience

Liquid Sanitation Chemicals: Minimizing Storage Hazards

Both the International Building Code (IBC) and International Fire Code (IFC) define many of the chemical liquids used in the sanitation process as “health hazards” and limit the maximum allowable storage quantity for any given facility. These same codes also outline building fire separation and life safety components required for designated storage areas.

Even though these storage requirements are clearly specified, in Hixson’s experience, many facilities are not in compliance. As with flammable and combustible materials, facilities must pay careful attention to the quantities of corrosive and toxic materials stored in their facility. The key to adequately meeting codes and protecting the interests of your plant and its workers is to define and design a control area. A control area is a space within a building that is enclosed and bounded by exterior walls, and/or fire rated construction, which stores quantities of hazardous materials within the maximum allowable amount. The overall size of a control area is not limited: An entire facility can be considered one control area if the allowable liquid quantities for a single control area are not exceeded.

Multiple control areas can be used to accommodate larger quantities of liquids. The maximum allowable quantity of control areas within a building varies by the number of floor levels contained in the building and by which floor levels the control areas are located. (For example, the maximum number of control areas permitted in a typical one-story facility is four.) In addition to establishing proper control areas, facilities that are near or at the maximum storage limits may want to consider using “just-in-time delivery” from the sanitation chemical vendor

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The following table outlines the IBC’s required storage limits for hazardous liquids stored in a control area:

Classifications	Amount (in gallons)
Corrosive	1,000
Toxic	100
Highly Toxic	2

Note: *These quantities are assumed to be located within a facility that is equipped throughout with an automatic sprinkler system. Allowable quantities will decrease within a facility that is not fully sprinkled, but can be doubled if stored in approved storage cabinets.*

before incurring the cost of building a new chemical storage room. This method keeps on-site storage below minimum levels by bringing in the chemicals when required.

Finally, remember to check with the National Fire Protection Association (NFPA) as well as with your insurance carrier, for what, if any, additional requirements/restrictions exist regarding the storage of corrosive and toxic liquids.



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