

# MINNESOTA STATE DEPARTMENT OF PUBLIC SAFETY



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## State Fire Marshal Division

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### ALCOHOL BASED HAND SANITIZERS (ABHR)

A lot has been written about alcohol-based hand sanitizers and their effectiveness in dealing with infection control, particularly in health care facilities. What many don't realize is that these products contain alcohol, a flammable liquid. In fact, in order to meet the definition of a waterless hand sanitizer for the Centers for Disease Control (CDC), the product must be at least 60% alcohol by volume. Flammable liquids give off vapors that can be easily ignited. Once ignited, they burn very intensely (alcohols normally burn with a clean blue flame and produce very little smoke). They can contribute to the rapid spread of fires that originate elsewhere in the building (e.g. linen or cleaning cart fire).

The Minnesota State Fire Code (MSFC 07) controls the use and storage of flammable liquids in Chapter 34. Section 3401.2 of the MSFC (07) is amended by adding item 10, which reads:

The use of wall-mounted dispensers containing non-aerosol, alcohol-based hand sanitizers classified as Class I or Class II liquids shall be in accordance with section 3405.5.

1. Where dispensers are in a corridor, the corridor shall have a minimum width of 6 feet.
2. The maximum individual dispenser fluid capacity shall be as follows:  
Dispensers in rooms, corridors and areas open to corridors 1.2 liters or 40.57 fl. oz.  
Dispensers in suites of rooms 2.0 liters or 67.63 fl. oz.
3. The dispensers shall be separated from each other by at least 48 inches horizontally.
4. Not more than 10 gallons (37.8 L) (aggregate) shall be in use outside of a storage cabinet within a single smoke compartment.
5. Storage quantities greater than 5 gallons (18.9 L) in a single smoke compartment shall meet the requirements of chapter 3400.
6. Dispensers shall not be installed over or within 6 inches to the centerline of the dispenser to an electrical receptacle, switch, appliance, device or other ignition source.
7. Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments
8. The dispenser shall not project over any walking surface (corridor, aisle) by more than 4 inches (102mm) between the heights of 27 inches (686 mm) and 80 inches (2032 mm) on either side. (MSFC (2007) section 1003.3.3).

While the use of ABHR was first found in health care occupancies (hospitals, nursing home, ambulatory surgery centers), the use is showing up in other occupancies such as schools, doctor's offices, churches, and even grocery stores.