

Minnesota Department of Public Safety State Fire Marshal Division

Alcohol-Based Hand Rubs (Sanitizers)

Information

A lot has been written about alcohol-based hand rubs (ABHR) 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 percent 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).

Where they are used

ABHRs were first used in health care occupancies (hospitals, nursing home, and ambulatory surgery centers). They are now also being used schools, grocery stores and other occupancies.

Code requirements

The 2020 Minnesota State Fire Code (MSFC) controls the use and storage of flammable liquids in chapter 57, Flammable and Combustible Liquids.

The use of wall-mounted dispensers containing ABHRs classified as Class I or Class II liquids shall be in accordance with MSFC Section 5705.5. Corridor installations shall comply with MSFC Section 5705.5.1. The following are some of the requirements from Section MSFC 5705.5:

- The maximum capacity of each dispenser shall be 68 ounces.
- The dispensers shall be separated from each other by at least 48 inches horizontally.
- Dispensers shall not be installed directly adjacent to, directly above or below an electrical receptacle, switch, appliance, device or other ignition source. The wall space between the dispenser and the floor shall remain clear and unobstructed.
- Dispensers shall be mounted with bottom 42 to 48 inches above finished floor.
- Dispensers shall release their contents by manual activation. Automatic "touch free" release is allowed when complying with MSFC Section 5705.5 items 5.1 through 5.2.3.
- Storage and use of ABHR's shall comply with provisions in MSFC Section 5704 and 5705.
- Dispensers installed directly over carpeted floors shall be permitted only in smoke compartments or fire areas protected with automatic sprinklers installed to NFPA 13 or NFPA 13R.
- In corridors, Level 2 and 3 aerosols are not allowed. Maximum capacity of each Class I and II liquid dispenser shall be 41 ounces and maximum capacity of each Level 1 aerosol dispenser



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shall be 18 ounces. The MAQ in a control area corridor shall comply with MSFC Section 5705.5.1 #3.

- Where dispensers are in a corridor, the corridor shall have a minimum width of 6 feet.
- The dispenser in corridors shall not project horizontally over any walking surface by more than four inches between the heights of 27 inches and 80 inches per MSFC Section 1003.3.3.

Any questions related to this should be directed to the code specialist with the SFMD at 651-201-7221 or you can e-mail questions to fire.code@state.mn.us.

