

## Alcohol-Based Hand Sanitizers, A Blessing or Hazardous Material?

By Marian Beck Clore, RN, BSN, ICP

" Healthcare providers are recognizing that alcohol-based hand sanitizers are an effective alternative to washing hands with soap and water. When alcohol-based hand soap dispensers are conveniently located, more frequent hand cleansing is encouraged, less time is required and better compliance is promoted. Some facilities support the idea of mounting liquid hand sanitizing containers onto walls between patient rooms, near patient beds, in dirty utility rooms, etc. Bottles of hand sanitizers are kept in other easy-to-reach places, such as patient bedside stands, or healthcare workers (HCWs)' pockets. The problem? Alcohol-based gels, foams and liquids are extremely flammable and are classified as hazardous materials."

" Inquiries to the local fire department revealed that the fire codes approve hand-sanitizing products that are packaged and labeled according to the National Fire Protection Agency (NFPA) and Occupational Safety and Health Administration (OSHA) standards. These products should be stored as any other flammable liquid would. Fire department officials were extremely surprised to hear that liquid hand sanitizers were so widely used, and at the same time, so highly flammable."

" While not statistically validated, experimentation was performed using six bottles of hand sanitizing gels, foams and liquids. The MSDS sheets for these products listed the flammability ratings of "3" and "4" (extremely flammable). Ignition testing produced the following results: Instantaneous combustion occurred; there was visible heat radiation, with no actual flame; and boiling was evident and visible. **The facility fire inspector stated that he compared the combustion of alcohol-based hand sanitizers to that of napalm, as both have very similar ingredients and burning patterns."**



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