

Hand Sanitizers Pose Risks

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▲ Flammable vapors can linger after the application of hand sanitizer. After applying, avoid sources that can cause ignition.

While working at a facility, an employee used alcohol-based hand sanitizer following current recommendations for COVID-19 personal hygiene. After application, but before the liquid sanitizer had fully evaporated and dried, the individual touched a metal surface, creating a spark from electrostatic discharge, which acted as an ignition source. The sanitizer ignited, engulfing both hands in an almost invisible flame. The employee managed to extinguish the flames, but suffered first- and second-degree burns. (Read the International Association of Oil & Gas Producers Safety Alert 314 for more information: https://safetyzone.iogp.org/safetyalerts/alerts/Detail.asp?alert_id=314.)

Did You Know?

- Some hand sanitizers are alcohol-based and are flammable with flashpoints of 62–80°F (16.6–26.7°C). At temperatures above the flashpoint, the vapors need only an ignition source to start burning.
- Many hand sanitizers have a safety data sheet (SDS) that lists hazards and precautions, including the flashpoint temperatures.
- Hands that are wet with alcohol-based sanitizer can be ignited by a static spark or any other ignition source. Individuals can carry a static charge large enough to cause ignition, or they can encounter an ignition source. For example, cases have been reported in which a person's hands were engulfed in flames shortly after applying hand sanitizer and lighting a cigarette.
- Alcohol fires burn with a very light blue flame that is typically hard to see.
- Water can quickly extinguish a small alcohol fire.
- Some hand sanitizers contain methanol, which is flammable and toxic. Do not use these sanitizers on your skin.

What Can You Do?

- When using alcohol-based lotions or sanitizers, allow them to completely dry before doing tasks that may cause ignition.
- Read the SDS for all materials you handle, even those that are seemingly harmless.
- Store alcohol-based hand sanitizers according to the SDS and away from light and heat sources, which can increase flammability and reduce their effectiveness.
- Share this information with your family and friends to prevent similar incidents.

Handle all materials safely — even those intended to keep you safe!