

Hand Sanitizer Hazards at Home and Work

September 2020



Burns caused by a fire from hand sanitizer ignition

An employee used alcohol-based hand sanitizer, according to 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 where a build-up of static created an ignition source. The sanitizer ignited, resulting in an almost invisible flame on both hands. The individual managed to extinguish the flames but was left with 1st and 2nd degree burns.

Ref: International Association of Oil & Gas Producers (IOGP) Alert 314 IOGP Safety. (<https://safetyzone.iogp.org/>).

There have also been cases where shortly after applying hand sanitizer, the person lit a cigarette and their hands were engulfed in flames.

Did You Know?

- Some hand sanitizers are alcohol-based and are flammable with flashpoints of 62 to 80°F (16.6 to 26.7°C). Once above the flashpoint, the vapors only need an ignition source to start burning.
- Many hand sanitizer solutions have a Safety Data Sheet (SDS) that list hazards and precautions including flashpoint.
- Hands wet with alcohol-based sanitizer can be ignited by a static spark or any other ignition source. People can carry a static charge large enough to ignite flammables.
- Alcohol fires burn with a very light blue flame that are hard to see. Water can quickly extinguish a small alcohol fire.
- Some hand sanitizers contain methanol or methyl alcohol¹ which is flammable and toxic. Do Not Use these on your skin!

1. <https://www.fda.gov/drugs/drug-safety-and-availability/fda-updates-hand-sanitizers-methanol>

What Can You Do?

- When using alcohol-based lotions or sanitizers, allow them to completely dry before doing other tasks that may ignite them.
- 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 so they do not have a similar incident.

Handle all materials safely, even those meant to keep you safe!!