

# Clean and Disinfect Alcohol-Based Handrub Container

Clean and then disinfect empty, reusable ABHR containers before refilling with Alcohol-Based Handrub (ABHR) containers. There are two methods of disinfection: heat and chlorine. Heat disinfection is preferred over chlorine disinfection to minimize chemical hazards and water use. However, the size of containers, their materials, and the availability of equipment should guide the selection of the method.

## Cleaning

Step 1



**Clean the inside:** Use a narrow bottle brush to scrub the inside of the container and the nozzle. Alternatively, open, pour in soapy water, close and then shake vigorously. Pump out soapy water through the nozzle.

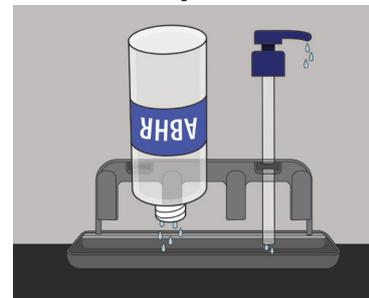
**Clean the outside:** Scrub back and forth the outside of the container and the nozzle with soapy water to remove any visible dirt.

Step 2



**Rinse** the inside and the outside of the container fully, using clean water and pump out clean water through the nozzle. Make sure the water in rinsing bucket stays clean. Refill the rinsing bucket with clean water, as needed.

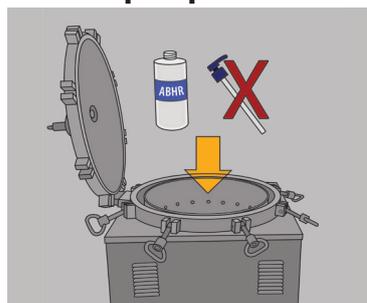
Step 3



**Drain** any rinse water from the container and nozzle.

## Disinfection: Heat method

Step 1: Option A



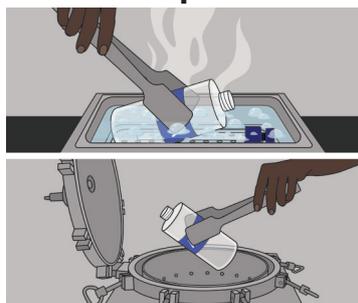
**Place** cleaned container in an autoclave and follow the manufacturer's instructions. Some bottles, especially the nozzles, may not take high heat generated by the autoclave and need to be disinfected separately by boiling or using the chlorine method.

Step 1: Option B



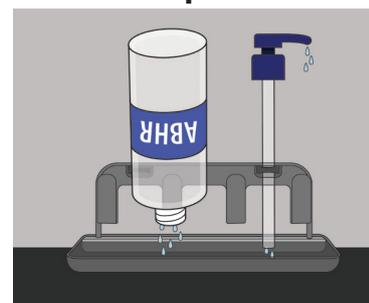
**Place** cleaned container and nozzle in the boiler/pot and boil for 20 minutes, start counting time once the water is fully boiling.

Step 2



**Remove** the container and nozzle with clean tongs. If water has cooled, container may be removed with clean hands or clean gloves.

Step 3

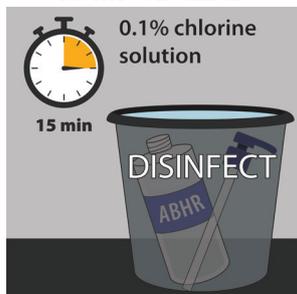


**Dry** container by placing it on a clean surface in an upside down position. Pump out water from the nozzle. When items are completely dry, they should either be immediately refilled with new ABHR or be closed with a lid and stored, protected from dust, until use. Relabel containers if labels were destroyed.

## Disinfection: Chlorine method

Make sure to wear PPE: rubber gloves, an apron, a face mask and goggles or a face shield when cleaning and disinfecting ABHR containers. Make new 0.1% chlorine solution at least once a day. Dispose of used or left over solutions in a safe place.

Step 1: Option for small ABHR containers



**Immerse** the cleaned container and nozzle completely in 0.1% chlorine solution for 15 minutes. Make sure that the solution fills the entire container and nozzle.

Step 1: Option for large ABHR containers



**Disinfect the inside:** For large containers that cannot be immersed, fill with 0.1% chlorine solution to the top, close the lid, and let stand for 15 minutes.

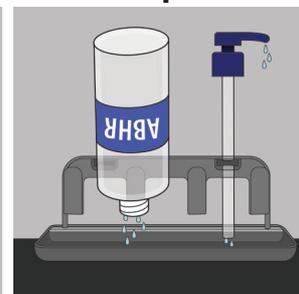
**Disinfect the outside:** Wet all outside parts of container with 0.1% chlorine solution. The container needs to stay visibly wet for 15 minutes before rinsing.

Step 2



**Rinse** both the inside and the outside of the container fully with sterile/cool boiled water and pump out the water through the nozzle.

Step 3



**Dry** container by placing it on a clean surface in an upside down position. Pump out water from the nozzle. When items are completely dry, they should either be immediately refilled with new ABHR or be closed with a lid and stored, protected from dust, until use. Relabel containers if labels were destroyed.