

**During the COVID-19 Pandemic:**

## **SAFE CLEANING & DISINFECTING IN HOME CARE**

### **Guidance for Home Care Agencies and Aides**

This factsheet provides basic information for home care aides on cleaning and disinfecting and special considerations during the COVID-19 pandemic.

COVID-19 presents a special case for cleaning and disinfecting because the virus that causes COVID-19 is infectious and is new to the human population which means most people have no immunity. The virus (SARS-CoV-2) is given off by persons who are infected by the virus whether or not they have symptoms of the disease. Current evidence suggests that the virus may remain infectious for a period of hours to days on surfaces depending on the surface and the ambient conditions (temperature, humidity, sunlight). Anyone who contacts a virus-contaminated surface with their hands and then touches their eyes, nose or mouth may become infected.

Detailed guidance is provided for cleaning and disinfection of surfaces such as countertops, tile, sinks, and bathroom fixtures.

#### **Basic protections**

Cleaning and disinfecting are part of a range of actions to prevent spreading COVID-19 and other germs. (A germ is a microorganism, especially one that can cause disease.) Other measures include:

- washing hands often (soap & water for 20 seconds minimum)
- using hand sanitizer if soap & water are not available (60% alcohol minimum)
- not touching your face
- social distancing (6 feet or more from others when possible)
- ventilating rooms with fresh air
- staying home when sick
- covering coughs and sneezes,
- wearing personal protective equipment (PPE) as directed by your employer

#### **Why are cleaning and disinfecting important, and what is the difference?**

Anyone who contacts a virus-contaminated surface with their hands and then touches their eyes, nose or mouth may become infected. Therefore, cleaning and disinfecting, a two-step process, is an important prevention measure.

**Step 1.** Cleaning tasks use soap or detergent to remove all sorts of contaminants such as dirt, grease, and oil. It is normal for these materials to build up on home surfaces during regular use.

Cleaning works by using soap (or detergent) and water to physically remove soils and germs from surfaces. This process does not necessarily kill all germs, but by removing them, it lowers their numbers and the risk of spreading infection.<sup>1</sup>

**Step 2.** Disinfection uses chemicals designed to kill germs on pre-cleaned surfaces to further lower the risk of spreading infection.<sup>1</sup> Pre-cleaning is important because disinfectants need to be in direct contact with the germs they are meant to kill. Each disinfectant has a specific “contact time” that it needs to stand undisturbed on the pre-cleaned surface—this is the length of time needed to kill the germs. The U.S. Environmental Protection Agency (EPA), maintains a list of disinfectants, including their contact times, that are effective against SARS-CoV-2.<sup>2</sup>

<sup>1</sup>Reference: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html>

<sup>2</sup>Reference: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

## Hard Surfaces: Proper use of disinfectants on pre-cleaned surfaces

### Never mix cleaning products!

It is very dangerous to mix cleaning products such as bleach and ammonia because they create poisonous gases.

### Selection of disinfectants that kill the virus that causes COVID-19

You can purchase commercially available disinfectants, for example at the grocery store, or use do-it-yourself products.

CDC information on do-it-yourself disinfecting products can be found at:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html>

The CDC provides a simple formula for a disinfectant using bleach:

- Add 5 tablespoons (1/3 cup) bleach per gallon of water or 4 teaspoons per quart of water.
- Leave solution on the surface for at least 1 minute.
- It's best to make this fresh but it can be stored in a clean air-tight container, such as a plastic spray bottle.
- Make sure the container is labeled with a description of the contents.

Another CDC-recommended disinfecting solution:

- Alcohol solutions with at least 70% alcohol (use undiluted) may be used.

(This refers to alcohol purchased in a drug store, commonly referred to as rubbing alcohol.)

There are many consumer disinfection products you can purchase which have been approved by the EPA for use against SARS-CoV-2 (the virus that causes COVID-19). Look on the label of the product for an EPA registration number (abbreviated "EPA Reg. No." on the bottle). Take this number to the following website:

#### EPA List N Tool: COVID-19 Disinfectants

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

- Click the box that says "Click Here to Find a Product to Kill Coronavirus (COVID-19)" and then click "Launch" on the next screen (see Figure 1).
- The next screen provides options to search on the EPA registration number, active ingredient, type of cleaning environment (All, Healthcare, Institutional, and Residential), contact time and other choices (see Figure 2).

Select the search option (e.g. Registration number, Ingredient, Use site, Contact time, Keyword) that best suits your need. For example, enter the EPA registration number of a product you have on hand to see if it is effective against SARS-CoV-2. Or look on List N for all products suitable for use in a "Residential" (home) environment.

*Be sure to use the "clear results" button in between searches.*

- EPA has pre-sorted this list so that only products suitable for killing SARS CoV2 will be displayed. For example you may search on a product you have on hand. If the search comes back with the message "There is no matching data found. Please change your search criteria.", this product may not be effective against SARS-CoV-2 (see Figure 2).

Figure 1. EPA List N Tool

The screenshot shows the EPA website's Pesticide Registration section. The main heading is "List N: Disinfectants for Coronavirus (COVID-19)". A prominent blue button with a red arrow pointing to it says "Click Here to Find a Product to Kill Coronavirus (COVID-19)". Below this, there are links for an infographic and an advanced search option. A "Things to know" section lists key information about the tool's use and EPA's endorsement. A sidebar on the left contains navigation links for various registration types and requirements.

Figure 2. Example of searching for Product EPA Registration Number

The screenshot displays the search interface of the EPA List N Tool. A search box contains the number "70271-15". Below the search box are several filter buttons: "Active Ingredient", "Use Site", "Contact Time", "Browse All", and "Keyword Search". The results section shows a total count of 1 entry. A table lists the search results, including the EPA Registration Number, Active Ingredient(s), Product Name, Company, Disinfection Directions, Contact Time, Formulation Type, Surface Type, Use Site, and Emerging Viral Pathogen Claim.

EPA Registration Number	Active Ingredient(s)	Product Name	Company	Follow the disinfection directions and preparation for the following virus	Contact Time (in minutes)	Formulation Type	Surface Type	Use Site	Emerging Viral Pathogen Claim?
70271-15	Sodium hypochlorite	2% Sodium Hypochlorite Spray	KIK International Inc	Rhinovirus	1	Ready-to-use	Hard Nonporous (HN)	Healthcare; Institutional; Residential	Yes

## Chemical hazards in cleaning and disinfecting products

Some cleaning and disinfecting products are more hazardous than others. More information about the safety of chemicals in cleaning and disinfecting products is available at:

*General Purpose Cleaning Products: Chemical Ingredients – Questions and Answers*  
[www.uml.edu/SHC-CD-Ingredients](http://www.uml.edu/SHC-CD-Ingredients)

### Safe Home Care Project

Research to Practice Fact Sheet: Safe Cleaning and Disinfecting in Home Care

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## How to use disinfectants on hard surfaces

Always follow label directions on cleaning products and disinfectants. Wear gloves and use in a well-ventilated area. If possible, use ventilation fans or open windows. Eye protection is recommended, such as safety glasses, goggles, or a face shield.

**Step 1.** Pre-clean surfaces to be disinfected using soap (or detergent).

- Wash with soap and water
- Thoroughly rinse with water

**Step 2.** Apply disinfectant

- Following the manufacturer's instructions on the label, apply and allow the disinfectant to remain undisturbed on the surface for the specified contact time
- Contact time can be found on the label or EPA List N Tool website; it typically ranges between 1-15 minutes
- Rinse or wipe surface clean after disinfection per manufacturer's instruction

Also:

- Open windows or use fans to get fresh air, especially in small spaces like bathrooms
- Avoid spending long periods of time in spaces where you've recently used disinfectants

## Cleaning other surfaces

You may be asked to clean other types of home surfaces. The CDC website offers online advice, such as shown in the following Table 1. You can access this information at:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html>

**Table 1. CDC recommendations for other surfaces**

### Soft Surfaces

For soft surfaces such as carpeted floor, rugs, and drapes

- **Clean the surface using soap and water** or with cleaners appropriate for use on these surfaces.
- **Laundry items** (if possible) according to the manufacturer's instructions. Use the warmest appropriate water setting and dry items completely.
- **Disinfect with an EPA-registered household disinfectant.**

### Electronics

For electronics, such as tablets, touch screens, keyboards, and remote controls.

- Consider putting a **wipeable cover** on electronics
- Follow **manufacturer's instruction** for cleaning and disinfecting
  - If no guidance, use alcohol-based wipes or sprays containing at least 70% alcohol. Dry surface thoroughly.

### Laundry

For clothing, towels, linens and other items

- Launder items according to the manufacturer's instructions. Use the warmest appropriate water setting and dry items completely.
- **Wear disposable gloves** when handling dirty laundry from a person who is sick.
- Dirty laundry from a person who is sick can be washed with other people's items.
- **Do not shake** dirty laundry.
- Clean and **disinfect clothes hampers** according to guidance above for surfaces.
- Remove gloves, and wash hands right away.

Reference: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html>

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