CLEAN WATER FUND

Safe Cleaning & Disinfecting in the Age of COVID-19

The age of COVID-19 has brought many new challenges when it comes to staying healthy and safe. We have learned that wearing a mask and social distancing will reduce exposure to airborne contaminants and we've gained a heightened appreciation for cleaning, sanitizing and disinfecting surfaces.

When it comes to cleaning and disinfecting, there are important things to consider to maintain a healthy and safe environment. What many people may not know is that some cleaners and disinfectants can have harmful health effects. Fortunately, **we can minimize the danger by choosing safer products and following careful cleaning and disinfecting practices.**

Why are safer cleaning and disinfecting practices important?

More cleaning and disinfecting with toxic chemicals = More opportunities for exposure to harmful chemicals

How do I protect from COVID-19 and harmful chemicals?

Know the difference:

CLEANING:
Washes dirt, germs, and viruses off surfaces

SANITIZING:
Lowers number of germs on surfaces

DISINFECTING:
Kills microorganisms (bacteria and viruses)

How to clean and disinfect safely

Always clean before sanitizing or disinfecting. Microorganisms, like bacteria and viruses, can hide in dirt particles sheltering them from disinfectants and sanitizers.

Don't overuse disinfectants and sanitizers. Cleaning using soap in water is often enough. Save the use of disinfectants for high traffic areas and surfaces that are touched frequently.

Don't use disinfectants on food-contact surfaces, like cutting boards, pots and pans or dishes — they may linger on the surface long after you have cleaned with them and can get into the food.

Wear Personal Protective Equipment (PPE). Gloves, and even a mask and glasses, will help to avoid harmful chemicals from coming in contact with skin and being inhaled.

Open the windows and turn on the fan. Good ventilation is key to avoid inhaling harmful chemicals.

Spray. Wait… Wait some more. Wipe. A chemical needs to be in contact with a microorganism for a specific amount of time to be effective. Read and follow the label carefully.

Never mix chemicals! Certain chemical combinations will result in noxious fumes that can kill! Never mix bleach with anything except water *(see next page)*.

Chemicals to Avoid

Though many disinfecting chemicals can cause respiratory distress, bleach and quats are particularly dangerous for people with existing breathing complications including asthma!

Chlorine Bleach: A commonly used disinfectant, chlorine bleach can cause mild irritation or corrosive injury if exposed to skin or eyes, and when combined with acids or ammonia can cause serious upper respiratory damage or even death.

Quaternary Ammonium Compounds (Quats): Products using these compounds are among the most extensively used. Quats are skin and lung irritants and can contribute to asthma and breathing problems. They may also cause fertility issues.

Never mix bleach with anything except water!

Bleach + Ammonia = Can be lethal!
Bleach + Hydrogen Peroxide = Dangerous
Bleach + Acid (in some toilet bowl cleaners) = Can be lethal!
Bleach + Isopropyl Alcohol = Dangerous
Bleach + Vinegar = Dangerous
Hydrogen Peroxide + Vinegar = Dangerous

How to Spot a Quat — Quaternary Ammonium Compounds are often used in disinfecting wipes. Check the active ingredients on the label; quats usually end in "-onium chloride." *For example:* Benzalk**onium chloride**, Alkyl dimethyl benzyl amm**onium chloride**, Didecyldimethylamm**onium chloride**

Choosing safer products to fight COVID

Look for **Safer Choice** (cleaners only), **Design for the Environment** (disinfectants only), **Ecologo** or **GreenSeal** logos to find safer choices.

You can check for the logo on the bottle or look up products on these online databases:
Safer Choice: https://www.epa.gov/saferchoice/products
Design for the Environment: https://www.epa.gov/pesticide-labels/dfe-certified-disinfectants
GreenSeal: https://www.greenseal.org/certified-products-services

For safer cleaners, another place to search is Environmental Working Group Guide to Healthy Cleaning: https://www.ewg.org/guides/cleaners/.

Use Safer Chemical Alternatives. The following chemicals have been approved by EPA's Safer Choice Program as effective disinfecting ingredients:

Isopropanol	Hydrogen Peroxide	L-Lactic Acid	Sodium bisulfate
Ethanol	Citric Acid	Peracetic acid	Hypochlorous Acid

Not sure if it will kill COVID? The EPA's "List N" Can Help. Search for products by the EPA's registration number, by active ingredient, use site, surface type, or contact time. Use this list to find out if your product is effective against human coronavirus or to find the product that meets your preferences. The EPA expects all the chemicals and associated products on this list to kill COVID 19 when used according to the label directions. It is not, however, an indication that the product is "safe."

The Toxics Use Reduction Institute (TURI): A Wealth of Information. For more information, and other safer alternatives for cleaning and disinfecting, visit the Toxics Use Reduction Institute's website.

To receive a **VIRTUAL WORKSHOP** on this material and more, please contact **Ian Hyp (ihyp@cleanwater.org)** or **Laura Spark (lspark@cleanwater.org).**

CLEAN WATER FUND

This fact sheet was developed under a grant from the Toxic Use Reduction Institution at UMass Lowell.