Hazardous chemicals are common in cleaning, sanitizing, and disinfecting products. Some chemicals cause or trigger asthma such as bleach (sodium hypochlorite) and quaternary ammonium compounds (sometimes called quats and may be listed as “ammonium chloride”). Some chemicals cause immediate issues such as skin damage. Long-term exposure to some chemicals can harm reproductive health or other body systems, and may even cause cancer.

Employers should provide less toxic products as well as information and training to ensure safer cleaning practices that protect workers’ health.

THE BASICS

1. Cleaning, sanitizing and disinfecting all do different things.
   Often a good cleaning is all that is required, and cleaning is always the first step before sanitizing and disinfecting.

2. Employers are responsible for providing healthy and safe jobs.
   That includes providing less toxic methods or products and plans for cleaning, sanitizing, and disinfecting. Those plans must be part of a health and safety program. Joint workplace health and safety committees or representatives must be involved in developing, evaluating, and updating the program and its plans.

3. Workers must be trained about the hazards of any product they use, how to use it properly, and how to use personal protective equipment (PPE) if it’s needed.
   Any PPE must fit the individual worker, and be properly maintained and cleaned or disposed of.

4. The most effective ways to deal with hazards is prevention
   Things like good ventilation, work procedures, and less toxic products are good ways to reduce harm. Personal protective equipment is the last resort.

CLEANER, SANITIZER & DISINFECTANT

What are the differences?

**CLEANER:** Removes germs, dirt, and impurities from surfaces or objects. Works by using soap/detergent, water and friction to physically remove dirt and germs from surfaces. Cleaning before disinfecting reduces the spread of infection more than disinfecting alone.

**SANITIZER:** Reduces germs on surfaces to levels considered safe for public health.

**DISINFECTANT:** Destroys almost all infectious germs, when used as the label directs, on a surface. No effect on dirt, soil, or dust. Should be used where required by law, in high-risk and high-touch areas, or in case of infectious disease.*

*Products must be registered with Health Canada or the US EPA and should be approved to kill coronavirus.
START WITH LESS TOXIC PRODUCTS OR METHODS

Ask your employer to purchase products and materials that protect the health of cleaning workers and other people in the spaces being cleaned or disinfected.

Less toxic products are available for cleaning, sanitizing, or disinfecting.

Cleaning and scrubbing with soap, water and microfibre or cotton cloths, removes dirt and germs from surfaces. Soap breaks down the corona virus’ protective coating. That inactivates the virus, stopping it from spreading.

Disinfectants are widely overused and misused, sometimes without being diluted properly or left on surfaces long enough. Cleaning is always the first step before sanitizing or disinfecting; otherwise those efforts won’t work. Sanitizers and disinfectants must be registered with Health Canada or the US EPA. With thorough cleaning, disinfection is only needed in places where people may be sick with a virus or bacteria, high-touch spots in areas before people can wash their hands, or where required by law.

“Environmentally preferable” products are independently certified to contain fewer harmful chemicals than traditional ones. Look for Green Seal, UL Ecologo and Cradle to Cradle (silver or gold levels).

Use healthy and effective cleaning practices

Good practices include:

✔ A plan with what to clean, sanitize, and disinfect and when. Logs should be used to keep track of what is done, by whom, and when.

✔ Lots of ventilation to dilute vapours and germs in the air.

✔ Clean and disinfect when spaces are empty, if possible. Go from the cleanest to the dirtiest area within rooms and buildings.

✔ Use the right product for the right surface. Most cleaning and disinfecting products are for hard surfaces. What works on stainless steel will not necessarily work on fabrics.

✔ Dilute products safely. Many products must be diluted before use. Closed loope systems are the best way to do this. The original container is connected indirectly to the container for the diluted product. Workers do not come into contact with the original cleaning product and it is diluted with water to the right concentration. Follow the instructions. Do not try to make the final version stronger.

✔ Pour diluted liquids directly onto a cloth or into water. If it’s in a spray bottle, spray directly into a cloth. When products are sprayed, it’s more likely to inhale the vapours.

✔ If you only have bleach for disinfecting, dilute it to an effective concentration. That means a 0.05% solution for most surfaces (e.g., 1:100 if the starting concentration is 5%). For toilets and cleaning materials/equipment, use 0.1%. Mix fresh solutions each day.

✔ Clean high-touch surfaces regularly. Disinfect only if necessary.

✔ Use disposable or dedicated cleaning equipment and materials. Properly store and clean non-disposable ones.

✔ All containers need proper labels. This is especially important if you are using diluted chemicals. Include the product name, names of ingredients and any special instructions for using it.

Choose products where the active ingredients are ethanol, isopropanol (isopropyl alcohol) hydrogen peroxide, L-lactic acid and citric acid.

Avoid products with quartenary ammonium (listed as “benzyl” or “ammonium chloride”), alkylphenol ethoxylates, and bleach (sodium hypochlorite).

Microfibre Cloths and Mops

Microfibre cloths and mops are a good option, especially for cleaning. They don’t kill bacteria, viruses and other germs the way chemicals do. Instead, they physically remove germs from surfaces. They can get rid of up to 99% of germs, including some viruses. The microfibers are measured in denier, the diameter of each fiber. The smaller the “denier” measurement, the better; the best ones are 0.13 denier.

Mops or cloths can be washed and re-used. Wet once, they can be used for one room, and then replaced with a clean mop or cloth. Use colour coding for different tasks.

PERSONAL PROTECTIVE EQUIPMENT MATTERS TOO

Check to make sure you have all the PPE you need (e.g., gloves, respirators for toxic products). The product label or safety data sheet should state what protection is required. So should the plan for cleaning and disinfecting. If there are not specific instructions, ask your employer to find out what’s needed.