



Coronavirus Disease 2019 (COVID-19)

Environmental Cleaning and Disinfection Recommendations

Interim Recommendations for US Community Facilities with Suspected/Confirmed Coronavirus Disease 2019

Background

There is much to learn about the novel coronavirus that causes [coronavirus disease 2019](#) (COVID-19). Based on what is currently known about the virus, spread from person-to-person happens most frequently among close contacts (within about 6 feet). This type of transmission occurs via respiratory droplets. Transmission of novel coronavirus to persons from surfaces contaminated with the virus has not been documented. Transmission of coronavirus in general occurs much more commonly through respiratory droplets than through fomites. Current evidence suggests that novel coronavirus may remain viable for hours to days on surfaces made from a variety of materials. Cleaning of visibly dirty surfaces followed by disinfection is a best practice measure for prevention of COVID-19 and other viral respiratory illnesses in community settings.

Purpose

This guidance provides recommendations on the cleaning and disinfection of rooms or areas of those with suspected or with confirmed COVID-19 have visited. It is aimed at limiting the survival of novel coronavirus in key environments. These recommendations will be updated if additional information becomes available.

These guidelines are focused on community, non-healthcare facilities (e.g., schools, institutions of higher education, offices, daycare centers, businesses, community centers) that do and do not house persons overnight. These guidelines are not meant for [cleaning staff in healthcare facilities](#) or repatriation sites, [households](#), or for others for whom specific guidance already exists.

Definitions

- *Community facilities* (e.g., schools, daycares centers, businesses) comprise most non-healthcare settings that are visited by the general public outside of a household.
- *Cleaning* refers to the removal of dirt and impurities, including germs, from surfaces. Cleaning alone does not kill germs. But by removing the germs, it decreases their number and therefore any risk of spreading infection.
- *Disinfecting* works by using chemicals to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs. But killing germs remaining on a surface after cleaning further reduces any risk of

spreading infection.



Cleaning and Disinfection After Persons Suspected/Confirmed to Have COVID-19 Have Been in the Facility

Timing and location of cleaning and disinfection of surfaces


- At a school, daycare center, office, or other facility that does not house people overnight:
 - It is recommended to **close off areas used by the ill persons and wait as long as practical before beginning cleaning and disinfection** to minimize potential for exposure to respiratory droplets. **Open outside doors and windows to increase air circulation in the area.** If possible, wait up to 24 hours before beginning cleaning and disinfection.
 - **Cleaning staff should clean and disinfect all areas (e.g., offices, bathrooms, and common areas) used by the ill persons**, focusing especially on frequently touched surfaces.
- At a facility that does house people overnight:
 - Follow Interim Guidance for [US Institutions of Higher Education](#) on working with state and local health officials to isolate ill persons and provide temporary housing as needed.
 - It is recommended to **close off areas used by the ill persons and wait as long as practical before beginning cleaning and disinfection** to minimize potential for exposure to respiratory droplets. **Open outside doors and windows to increase air circulation in the area.** If possible, wait up to 24 hours before beginning cleaning and disinfection.
 - In areas where ill persons are being housed in isolation, follow [Interim Guidance for Environmental Cleaning and Disinfection for U.S. Households with Suspected or Confirmed Coronavirus Disease 2019](#). This includes **focusing on cleaning and disinfecting common areas where staff/others providing services may come into contact with ill persons, but reducing cleaning and disinfection of bedrooms/bathrooms used by ill persons to as needed.**
 - In areas where ill persons have visited or used, continue routine cleaning and disinfection as in this guidance.

How to Clean and Disinfect

Surfaces

- If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.
- For disinfection, diluted household bleach solutions, alcohol solutions with at least 70% alcohol, and most common EPA-registered household disinfectants should be effective.
 - Diluted household bleach solutions can be used if appropriate for the surface. Follow manufacturer's instructions for application and proper ventilation. Check to ensure the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted.
- Prepare a bleach solution by mixing:
 - 5 tablespoons (1/3rd cup) bleach per gallon of water or
 - 4 teaspoons bleach per quart of water
 - [Products with EPA-approved emerging viral pathogens claims](#)   are expected to be effective against

COVID-19 based on data for harder to kill viruses. Follow the manufacturer's instructions for all cleaning and disinfection products (e.g., concentration, application method and contact time, etc.).

- For soft (porous) surfaces such as carpeted floor, rugs, and drapes, remove visible contamination if present and clean with appropriate cleaners indicated for use on these surfaces. After cleaning:
- If the items can be laundered, launder items in accordance with the manufacturer's instructions using the warmest appropriate water setting for the items and then dry items completely.
- Otherwise, use products with the EPA-approved emerging viral pathogens claims (examples at [this link](#) ) that are suitable for porous surfaces

Linens, Clothing, and Other Items That Go in the Laundry

- Do not shake dirty laundry; this minimize the possibility of dispersing virus through the air.
- Wash items as appropriate in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely. Dirty laundry that has been in contact with an ill person can be washed with other people's items.
- Clean and disinfect hampers or other carts for transporting laundry according to guidance above for hard or soft surfaces.

Personal Protective Equipment (PPE) and Hand Hygiene:

- **Cleaning staff should wear disposable gloves and gowns for all tasks in the cleaning process, including handling trash.**
 - Gloves and gowns should be compatible with the disinfectant products being used.
 - Additional PPE might be required based on the cleaning/disinfectant products being used and whether there is a risk of splash.
 - Gloves and gowns should be removed carefully to avoid contamination of the wearer and the surrounding area. Be sure to **clean hands** after removing gloves.
- Gloves should be removed after cleaning a room or area occupied by ill persons. **Clean hands** immediately after gloves are removed.
- Cleaning staff should immediately report breaches in PPE (e.g., tear in gloves) or any potential exposures to their supervisor.
- **Cleaning staff and others should clean hands often**, including immediately after removing gloves and after contact with an ill person, by washing hands with soap and water for 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains 60%-95% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water.
- Follow normal preventive actions while at work and home, including cleaning hands and avoiding touching eyes, nose, or mouth with unwashed hands.
 - Additional key times to clean hands include:
 - After blowing one's nose, coughing, or sneezing
 - After using the restroom
 - Before eating or preparing food
 - After contact with animals or pets

- Before and after providing routine care for another person who needs assistance (e.g., a child)

Additional Considerations for Employers:

- Employers should work with their local and state health departments to ensure appropriate local protocols and guidelines, such as updated/additional guidance for cleaning and disinfection, are followed, including for identification of new potential cases of COVID-19.
- Employers should educate staff and workers performing cleaning, laundry, and trash pick-up activities to recognize the symptoms of COVID-19 and provide instructions on what to do if they develop [symptoms](#) within 14 days after their last possible exposure to the virus. At a minimum, any staff should immediately notify their supervisor and the local health department if they develop symptoms of COVID-19. The health department will provide guidance on what actions need to be taken. When working with your local health department check their available hours.
- Employers should develop policies for worker protection and provide training to all cleaning staff on site prior to providing cleaning tasks. Training should include when to use PPE, what PPE is necessary, how to properly don (put on), use, and doff (take off) PPE, and how to properly dispose of PPE.
- Employers must ensure workers are trained on the hazards of the cleaning chemicals used in the workplace in accordance with OSHA's Hazard Communication standard ([29 CFR 1910.1200](#) [🔗](#)).
- Employers must comply with OSHA's standards on Bloodborne Pathogens ([29 CFR 1910.1030](#) [🔗](#)), including proper disposal of regulated waste, and PPE ([29 CFR 1910.132](#) [🔗](#)).

Additional Resources

- [OSHA COVID-19 Website](#) [🔗](#)
- [CDC Home Care Guidance](#)

Page last reviewed: March 6, 2020

Content source: [National Center for Immunization and Respiratory Diseases \(NCIRD\)](#), [Division of Viral Diseases](#)



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**List N: EPA's Registered Antimicrobial Products for Use Against
Novel Coronavirus SARS-CoV-2, the Cause of COVID-19**

Date: 03/03/2020

An individual pesticide product may be marketed and sold under a variety of names. If you are seeking additional information about a pesticide product, refer to the EPA Registration Number (EPA Reg. No.), found on the product label, not the brand name. When purchasing a product for use against a specific pathogen, check the EPA Reg. No. versus the products included on this list.

All EPA-registered pesticides must have an EPA Registration Number. Alternative brand names have the same EPA Reg. No. as the primary product. The EPA Reg. No. of a primary product consists of two set of numbers separated by a hyphen, for example EPA Reg. No. 12345-12. The first set of numbers refers to the company identification number, and the second set of numbers following the hyphen represents the product number.

In addition to primary products, distributors may also sell products with identical formulations and identical efficacy as the primary products. Although distributor products frequently use different brand names, you can identify them by their three-part EPA Reg. No. The first two parts of the EPA Reg. No. match the primary product, plus a third set of numbers that represents the Distributor ID number. For example, EPA Reg. No. 12345-12-2567 is a distributor product with an identical formulation and efficacy to the primary product with the EPA Reg. No. 12345-12.

Information about listed products is current as indicated by the dates on this list. If you would like to review the product label information for any of these products, please visit our [product label system](#). Inclusion on this list does not constitute an endorsement by EPA.

RTU- Ready-to-Use



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Registration Number	Product Name	Company	Formulation Type
1677-129	COSA OXONIA ACTIVE	Ecolab Inc	DILUTABLE
1677-226	VIRASEPT	Ecolab Inc	RTU
1677-235	BLEACH DISINFECTANT CLEANER	Ecolab Inc	RTU
1677-237	OXYCIDE DAILY DISINFECTANT CLEANER	Ecolab Inc	DILUTABLE
1677-238	PEROXIDE MULTI SURFACE CLEANER AND DISINFECTANT	Ecolab Inc/Kay Chemical Co.	DILUTABLE
1677-249	KLERCIDE 70/30 IPA	Ecolab Inc	RTU
1677-251	PEROXIDE DISINFECTANT AND GLASS CLEANER RTU	Ecolab Inc/Kay Chemical Co.	RTU
1839-220	SC-RTU DISINFECTANT CLEANER	Stepan Company	RTU
1839-248	Stepan Spray Disinfectant Concentrate	Stepan Company	DILUTABLE
1839-83	DETERGENT DISINFECTANT PUMP SPRAY	Stepan Company	RTU
4091-21	CONDOR 2	W.M. BARR & COMPANY, INC	RTU
4091-22	RAPTOR 5	W.M. BARR & COMPANY, INC	RTU
42182-9	FIREBIRD F130	MICROBAN PRODUCTS COMPANY	RTU
47371-129	FORMATION HWS-256	H&S CHEMICALS DIVISION OF LONZA, LLC	DILUTABLE



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Registration Number	Product Name	Company	Formulation Type
47371-130	FORMULATION HWS-128	H&S CHEMICALS DIVISION OF LONZA, LLC	DILUTABLE
47371-131	HWS-64	H&S CHEMICALS DIVISION OF LONZA, LLC	DILUTABLE
47371-192	FORMULATION HWS-32	H&S CHEMICALS DIVISION OF LONZA, LLC	DILUTABLE
56392-7	Clorox Healthcare® Bleach Germicidal Cleaner Spray	Clorox Professional Products Company	RTU
5813-105	Clorox Multi Surface Cleaner + Bleach	The Clorox Company	RTU
5813-110	Clorox Pet Solutions Advanced Formula Disinfecting Stain & Odor Remover	The Clorox Company	RTU
5813-111	Clorox Disinfecting Bleach2	The Clorox Company	DILUTABLE
5813-114	Clorox Performance Bleach1	The Clorox Company	DILUTABLE
5813-115	Clorox Germicidal Bleach3	The Clorox Company	RTU
5813-21	Clorox Clean Up Cleaner + Bleach	The Clorox Company	RTU
5813-40	Clorox Disinfecting Bathroom Cleaner	The Clorox Company	RTU
5813-79	Clorox Disinfecting Wipes	The Clorox Company	WIPE
5813-89	Clorox Toilet Bowl Cleaner with Bleach	The Clorox Company	RTU
63761-10	STERILEX ULTRA STEP	STERILEX	DILUTABLE
63761-8	STERILEX ULTRA DISINFECTANT CLEANER SOLUTION 1	STERILEX	DILUTABLE
675-54	LYSOL BRAND HEAVY DUTY	RECKITT BENCKISER	DILUTABLE



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Registration Number	Product Name	Company	Formulation Type
	CLEANER DISINFECTANT CONCENTRATE		
67619-12	Clorox Healthcare® Bleach Germicidal Wipes	Clorox Professional Products Company	WIPE
67619-16	Clorox Commercial Solutions® Toilet Bowl Cleaner with Bleach1	Clorox Professional Products Company	RTU
67619-17	Clorox Commercial Solutions® Clorox® Clean-Up Disinfectant Cleaner with Bleach1	Clorox Professional Products Company	RTU
67619-21	Clorox Commercial Solutions® Clorox® Disinfecting Spray	Clorox Professional Products Company	RTU
67619-24	Clorox Commercial Solutions® Hydrogen Peroxide Cleaner Disinfectant	Clorox Professional Products Company	RTU
67619-25	Clorox Commercial Solutions® Hydrogen Peroxide Cleaner Disinfectant Wipes	Clorox Professional Products Company	WIPE
67619-29	Saginaw	Clorox Professional Products Company	RTU
67619-30	GNR	Clorox Professional Products Company	RTU
67619-31	Clorox Commercial Solutions® Clorox® Disinfecting Wipes	Clorox Professional Products Company	WIPE
67619-32	CloroxPro™ Clorox® Germicidal Bleach	Clorox Professional Products Company	DILUTABLE
67619-33	Clorox Commercial Solutions® Clorox® Disinfecting Biostain & Odor Remover	Clorox Professional Products Company	RTU



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67619-37	Clorox Healthcare® VersaSure® Wipes	Clorox Professional Products Company	WIPE
67619-38	CloroxPro™ Clorox Total 360® Disinfecting Cleaner1	Clorox Professional Products Company	RTU
6836-140	LONZA FORMULATION S- 21F	LONZA, LLC	DILUTABLE
6836-152	LONZA FORMULATION DC-103	LONZA, LLC	RTU
6836-266	BARDAC 205M-10	LONZA, LLC	DILUTABLE
6836-278	BARDAC 205M- 14.08	LONZA, LLC	DILUTABLE
6836-289	BARDAC 205M RTU	LONZA, LLC	RTU
6836-302	BARDAC 205M-2.6	LONZA, LLC	DILUTABLE
6836-305	BARDAC 205M-23	LONZA, LLC	DILUTABLE
6836-313	LONZA DISINFECTANT WIPES	LONZA, LLC	WIPE
6836-340	LONZA DISINFECTANT WIPES PLUS 2	LONZA, LLC	WIPE
6836-349	LONZAGARD RCS- 256 PLUS	LONZA, LLC	DILUTABLE
6836-361	NUGEN MB5A-256	LONZA, LLC	DILUTABLE
6836-364	NUGEN MB5N-256	LONZA, LLC	DILUTABLE
6836-365	NUGEN MB5N-128	LONZA, LLC	DILUTABLE
6836-70	BARDAC 205M-7.5	LONZA, LLC	DILUTABLE
6836-75	LONZA FOUMLATION S-21	LONZA, LLC	DILUTABLE
6836-77	LONZA FORMULATION S- 18	LONZA, LLC	DILUTABLE
6836-78	LONZA FORMULATION R- 82	LONZA, LLC	DILUTABLE
70627-24	VIREX™ II / 256	Diversey, Inc.	DILUTABLE



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Registration Number	Product Name	Company	Formulation Type
70627-56	OXIVIR Tb	Diversey, Inc.	RTU
70627-58	OXY-TEAM™ DISINFECTANT CLEANER	Diversey, Inc.	DILUTABLE
70627-60	OXIVIR™ WIPES	Diversey, Inc.	WIPE
70627-72	Avert Sporidical Disinfectant Cleaner	Diversey, Inc.	DILUTABLE
70627-74	OXIVIR 1	Diversey, Inc.	RTU
70627-77	Oxivir 1 Wipes	Diversey, Inc.	WIPE
71847-6	KLORSEPT	MEDENTECH LTD	DILUTABLE
71847-7	KLORKLEEN 2	MEDENTECH LTD	DILUTABLE
777-127	LYSOL® DISINFECTANT MAX COVER MIST	RECKITT BENCKISER	RTU
777-132	LYSOL BRAND POWER PLUS TOILET BOWL CLEANER	RECKITT BENCKISER	RTU
777-70	LYSOL BRAND CLING & FRESH TOILET BOWL CLEANER	RECKITT BENCKISER	RTU
777-81	LYSOL BRAND LIME & RUST TOILET BOWL CLEANER	RECKITT BENCKISER	RTU
777-83	LYSOL BRAND BLEACH MOLD AND MILDEW REMOVER	RECKITT BENCKISER	RTU
777-89	LYSOL BRAND CLEAN & FRESH MULTI-SURFACE CLEANER	RECKITT BENCKISER	DILUTABLE
777-99	PROFESSIONAL LYSOL® DISINFECTANT SPRAY	RECKITT BENCKISER	RTU
84368-1	URTHPRO	URTHTECH, LLC	RTU



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Registration Number	Product Name	Company	Formulation Type
84150-1	PURELL Professional Surface Disinfectant Wipes	GOJO Industries, Inc.	WIPE
88494-3	PEAK DISINFECTANT	North American Infection Control, Ltd	RTU
88494-4	PEAK DISINFECTANT WIPES	NORTH AMERICAN INFECTION CONTROL, LTD	WIPE
9480-10	Sani-Prime Germicidal Spray	Professional Disposables International, Inc.	RTU
9480-12	Sani-Cloth Prime Germicidal Disposable Wipe	Professional Disposables International, Inc.	WIPE
9480-14	Sani-HyPerCide Germicidal Spray	Professional Disposables International, Inc.	RTU