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HOW TO CLEAN AND DISINFECT FOR COVID-19 AND HEPATITIS A: INTERIM GUIDELINES FOR PERSONAL HYGIENE FACILITIES FOR PERSONS LIVING HOMELESS

April 13, 2020

Audience: This document provides interim guidance for public entities and homeless service providers on increasing access to sanitation facilities for persons living homeless. Guidance provided in this document provides information to support increased access to sanitation and hygiene facilities to address the spread of both SARS-COV-2 (COVID-19) and Hepatitis A within homeless communities and for hygiene facilities in general that are publicly accessible.

Position: Public Health – Seattle & King County (PHSKC) is concerned about the spread of Hepatitis A (HAV) and the novel coronavirus that causes COVID-19 (SARS-CoV-2) within the homeless population in Seattle. The [CDC guidance](#) to reduce the spread of COVID-19 and other communicable diseases includes frequent hand washing with soap and water. COVID-19 is a new disease and we are still learning about how it is transmitted. It is thought to spread primarily person-to-person through respiratory droplets when an infected person coughs, sneezes or talks. It may also spread through surfaces and objects contaminated with respiratory droplets from an infected person. HAV is spread person-to-person through fecal-oral transmission. To decrease the spread of both viruses, PHSKC advises cities and other public entities to improve access to facilities where they can wash their hands, use the toilet, and shower. PHSKC recommends prioritizing access to hygiene facility in the following order 1) access to hand washing, 2) access to toilets, and 3) access to showers. Emphasis should be placed in geographic areas such where people living homeless typically congregate outdoors, and areas with unsanctioned encampments.

Public entities should strive to meet convenience standards on the number of hygiene facilities per population. The City of Los Angeles cited a [health care standard](#) for bathroom availability set by the World Health Organization (WHO) in order to maintain standards of a healthy environment and prevent spread of disease. This standard for bathrooms is a ratio of at least one toilet per 20 users, paired with nearby handwashing facilities. To accommodate high use of hygiene facilities when this standard cannot be met, cities like San Francisco and Los Angeles provide staffed mobile shower facilities through their [PitStop](#) program or Los Angeles County's mobile showering program. These facilities are staffed by an attendant to ensure that they are maintained and used for their intended purpose. In response to COVID-19 San Francisco opened [15 additional staffed facilities](#) and Los Angeles deployed [additional handwashing](#) facilities in high-risk areas. In addition to deploying portable handwashing and toilets, and staffed mobile showering facilities, public entities should consider the use of staffed mobile hygiene facilities in areas with the highest need.

In order for hygiene facilities to be effective, they must be consistently maintained to ensure sanitary conditions, including regular cleaning and disinfection, restocking, and general maintenance. Facilities opened or deployed in areas with concentrated homeless populations where there are fewer hygiene options will require considerably more cleaning and maintenance. PHSKC recommends prioritizing these areas, both to serve the needs and health of individuals, but also to prevent the spread of disease in the community as a whole.

While this guidance is being provided during a pandemic response, access to hygiene facilities is important at all times.

GUIDANCE DOCUMENTS

1. GUIDANCE FOR COMMUNITY – STAY SAFE
2. CLEANING, AND DISINFECTION FOR COVID-19 AND HEPATITIS A: GUIDELINES FOR MAINTENANCE AND OPERATION OF PUBLIC AND TEMPORARY PERSONAL HYGIENE FACILITIES
3. APPENDIX A: EPA REGISTERED DISINFECTANTS EFFECTIVE FOR SARS-COV-2 AND HEPATITIS DURING COVID-19
4. RESOURCES

GUIDANCE FOR COMMUNITY – STAY SAFE

King County is currently experiencing an outbreak of COVID-19 and Hepatitis A (HAV) among persons living homeless. Both can be dangerous to your health, but measures can be taken to protect yourself.

What is Hepatitis A?

Hepatitis A is a virus that spreads easily. Many people don't know they have hepatitis A so they spread it without knowing. It can cause severe liver disease that can last for months and sometimes cause death. Hepatitis A has been spreading in people living homeless in the U.S. **Vaccination will protect you from this virus.**

How does Hepatitis A spread?

Hepatitis A is in the poop of someone with the disease. If they haven't washed their hands after using the toilet, tiny bits of poop can get on things they touch. Hepatitis A spreads from:

Touching objects or eating food that someone with hepatitis A handled, having sex with someone who has hepatitis A, and sharing needles, pipes, or other items to take drugs.

What is COVID-19?

COVID-19 is a disease caused by the novel coronavirus (SARS-CoV-2). COVID-19 is used to describe both the disease and the virus in this document. COVID-19 is a new virus strain spreading here in King County and throughout the world. Most people infected with the COVID-19 virus will have mild symptoms, such as fever and cough, but some people can have severe disease with pneumonia. Although people of all ages can get infection, some are more likely to get severe disease, including people over age 60, people with underlying health conditions or weakened immune systems, and pregnant people.

How does COVID-19 spread?

COVID-19 spreads when an infected person coughs, sneezes or talks. **It spreads most easily when people are within 6 feet of each other.** Some people can have the virus without having any symptoms and spread to other people without knowing they are infected. Respiratory droplets can land in the mouths or noses of people who are nearby or may be inhaled into their lungs. COVID-19 also spreads when a person touches a surface or object that has the virus on it and then touches their mouth, nose, or eyes. A recent study showed that coronavirus survives for different amounts of time on different, uncleaned surfaces, ranging from a few hours to several days.

What should I do to protect myself from these diseases?

- **Practice physical distancing**
 - Avoid contact with people who are sick and stay away from others when you are sick.
 - Always stay at least 6 feet away from others.
- **Wash hands often with soap and water for at least 20 seconds, especially before eating, using the bathroom or after touching another person or possibly contaminated surfaces. If hand washing facilities are not available, use hand sanitizer with at least 70% alcohol content.**
- **Practice good respiratory hygiene**

- Wash hands often with soap and water for at least 20 seconds. If hand washing facilities are not available, use hand sanitizer with at least 70% alcohol content.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Cover your mouth/nose with a tissue or sleeve when coughing or sneezing, then throw out the used tissue.
- Avoid sharing personal items like drinking glasses, eating utensils, and towels with other people.

ROUTINE CLEANING, SANITIZING, AND DISINFECTION FOR SARS-CoV-2 (COVID-19) and HEPATITIS A: GUIDELINES FOR MAINTENANCE AND OPERATION OF PUBLIC AND TEMPORARY PERSONAL HYGIENE FACILITIES

This document serves as guidance for maintenance, cleaning, and disinfecting of temporary personal hygiene facilities. Take proper steps for cleaning and disinfecting of surfaces to remove germs that can make people sick. Surfaces that people touch a lot (door handles, railings, light switches, chairs, tables, faucets, sinks are considered high-touch surfaces) and bathroom surfaces should be cleaned, and disinfected routinely. *Note: This guidance provides instructions for disinfecting for high touch surfaces and hygiene facilities and should not be applied for food contact or food preparation surfaces.*

CHECKLIST FOR STOCKING PERSONAL HYGIENE FACILITIES

Facilities available to persons living homeless should provide opportunities to use the toilet, wash hands, and bathing/shower when available. For effective hygiene promotion, all facilities should be consistently stocked with the following items:

Toileting and Handwashing Facilities

- Hot water with an automatic shut off is intended for fixed facilities where available (between 100°F and 120°F). This may not be possible in temporary facilities and certain public facilities.
- Soap, and hand sanitizer (70% alcohol-based) provided at each handwashing station. Recommend automatic or one hand push dispenser to reduce cross-contamination.
- Paper hand drying towels and disposal bins that are emptied before becoming full (cleaning staff will need to monitor use of the facility).
- Toilet paper, with minimum necessary to prevent theft.

Showering Facilities

- Hot water provided between 100°F and 120°F.
- Body soap and shampoo at all bathing stations.
- Bag for clients to store personal belongings while bathing.
- Clean towels for clients.

- Provide clean socks and underwear if possible.

SUPPLIES, PERSONAL PROTECTIVE EQUIPMENT (PPE), AND SAFETY

SUPPLIES AND PERSONAL PROTECTIVE EQUIPMENT (PPE) NEEDED

Minimum PPE for all Site Staff (including attendant staff who are primarily serving to welcome and direct clients).

- Surgical mask
- Gloves
- If coming into contact with client belongings, a disposable gown or coverall is recommended.

Special PPE and Supplies for Cleaning with Chemicals

- Gloves, masks, and goggles/safety glasses for protection of skin and eyes during cleaning, clothing that covers exposed skin (see note about personal protection below).
- Protective clothing that can be thrown away or washed for use when deep cleaning or cleaning areas contaminated by bodily fluids.
- Cleaning supplies such as paper towels, garbage bags, scrubbing pads/cleaning brushes, squeegee
- Disinfectant products such as ready to use a.k.a. “RTU” in labeled spray bottles and/ or wipes. See Appendix A for a list of effective disinfectants.
- If diluting concentrated products: measuring cups, bucket, spray bottles to disperse disinfectant, marker/tape for labeling bottles.
- Hand sanitizer with at least 70% alcohol.
- Materials that need to be re-stocked in facilities (soap, paper towels, toilet paper, sanitary napkins, etc).
- Eye-wash station. Note: State law requires that certain disinfectants be used in the presence of eye wash stations ([link](#))

SAFETY FOR CLEANING STAFF

- Wear disposable facemask (not specialized N95 masks used for infection control, barrier protection from cleaning chemicals is recommended).
- Always wear gloves. Throw away the gloves when done.
- Wear protective clothing (apron) if possible, to prevent contamination of clothing.
- Store commonly used cleaning products in areas only accessible by staff to avoid excessive handling.
- Wash hands with soap and water after cleaning. Use an alcohol-based hand sanitizer if hand washing is not available.

*Note: Respirators such as N95 masks are only recommended for people who are sick and for those who are caring for people who are ill and are not recommended for routine cleaning and disinfection, barrier masks **are** acceptable for cleaning with chemicals.*

SAFETY PRECAUTIONS FOR USING CLEANING PRODUCTS

- **Always follow product label instructions** for information about recommended PPE (e.g., gloves, face masks, eye protection, etc.), how to properly use the chemical, contact time (amount of time chemical needs to remain on a surface before being wiped off), etc.
- **Protect yourself** before handling any chemicals. Chemicals can be very damaging to skin. Always wear gloves.
- **Open windows and doors** to ensure outdoor air is flowing through your facility or site. Do not clean any rooms with closed doors. This will help maximize air circulation and reduce health risks.
- **Use single-use paper towels** when cleaning with spray-bottle chemicals. Wiping cloths can harbor germs if they are not disinfected in between use on multiple surfaces. Wiping cloths are appropriate when solutions are prepared in a bucket, allowing them to be fully submerged in the solution and disinfected throughout the cleaning process.

CLEANING AND DISINFECTING

CLEANING AND SANITATION RECOMMENDATIONS

A thorough cleaning and disinfection of surfaces facilities should occur regularly and be based on the level of facility use and observed conditions. This guidance provides initial recommendations on cleaning frequency and staffing. ***These recommendations should serve as a starting point only. It is a recommended best practice for operators to regularly monitor facilities to determine if service frequency needs to be adjusted to consistently maintain sanitary conditions.*** Initial recommendations are provided below, dividing facilities into three “tiers” based on facility type, expected frequency of use, and anticipated labor and maintenance commitments.

Initial Cleaning Schedule Recommendations for Tiered Facilities where People Living Homeless Utilize Hygiene Facilities

Tier	Facility	Cleaning Schedule	Considerations	
Tier 1 High Labor and Maintenance Commitment	Shower Facilities	<p>Thorough deep clean daily and/or when visibly contaminated by bodily fluids.</p> <p>Routine cleaning and disinfection between each use. Note: Rinse well before next client to remove residual cleaning product.</p> <p>Provide garbage collection, laundry service for towels (if cloth towels are used) and ensure maintenance issues are addressed quickly.</p>	<u>Staffing and Client Services</u>	<p>Onsite staffing to welcome and manage guests, provide towels and hygiene supplies, ensure appropriate use, and restock supplies.</p> <p>If possible, make available clean socks and underwear. Consider working with a non-profit to provide clothing.</p>
			<u>Mobile shower additional consideration</u>	<p>Allow for two (2) site personnel one for guest sign in queue management and one for monitoring shower use and cleaning.</p> <p>Monitoring of fresh water and wastewater tank capacity based on the type of unit.</p> <p>Daily monitoring of status of units operating systems (water, electrical, wastewater).</p> <p>Following cleaning, Squeegee final rinse water into drain rather than using towel.</p>
Tier 2 Medium Labor Maintenance Commitment	Handwashing and Toileting Facilities	<p>Thorough deep clean daily and/or when visibly contaminated by bodily fluids.</p> <p>Restocking and routine cleaning high touch surfaces with disinfectant solution at least two (2) times per day.</p>	<p>On-site staffing generally not required</p> <p>Locations with high use and/or density of handwashing and toilets may require more frequent monitoring and service schedule should be adjusted to meet the need for the site.</p>	
Tier 3 Lower Labor and Maintenance Commitment	Facilities Open to General Public with limited use by people living homeless	<p>Thorough deep clean daily and/or when visibly contaminated by bodily fluids</p> <p>Restocking and routine cleaning high touch surfaces with disinfectant solution as needed based on the use of the facility</p>		

GUIDANCE FOR CLEANING AND DISINFECTION

Steps for Cleaning and Disinfection

Cleaning uses soap or detergent to **remove dirt and debris** from surfaces. Clean surfaces before sanitizing or disinfecting. Sanitizers and disinfectants are less effective on dirty surfaces. It's important to clean first. This can be done with pre-mixed cleaning or disinfectant wipes. If wipes are used for cleaning and disinfection, ensure they are disinfectant strength (read label), and separate wipes for each step.

Disinfection uses a chemical to **kill germs** on surfaces that are likely to harbor germs. Disinfectants work best after a surface has been cleaned of all dirt and debris, and usually require a longer surface wet contact period (meaning the surface stays wet with the disinfectant between 1 - 10 minutes, depending on the disinfectants manufacturer's instructions) to work.

Routine cleaning provides cleaning and disinfecting to maintain a facility's cleanliness throughout the day. Routine cleaning should be done multiple times a day to reduce the spread of germs and ensure that facilities are well stocked with soaps and other supplies.

- Disinfect high touch surfaces.
 - Focus on sinks handles or knobs (doors, toilet, sink faucets, urinals, light switches, etc)
 - Dispensers (soap, paper towel, sanitary napkin).
- Removing debris from floor.
- Restocking supplies such as soap, hand towels, toilet paper.
- Wipe down the entire toilet and frame to remove soil and fluids.

Daily Deep Cleaning provides a thorough cleaning and disinfection of entire facility daily and includes restocking cleaning and facility supplies. Daily deep cleaning/disinfecting should be done using both cleaning and disinfecting procedures outlined below.

- Prepare PPE.
- Allow for additional ventilation and airflow by opening doors and windows.
- Routine cleaning listed above.
- Cleaning and disinfecting protocol outlined below for all surfaces (hot spots, sink, toilet, shower, doors, floors).
- Allow for additional ventilation and air flow by opening doors and windows.
- Check facility and perform repairs that are required (e.g. broken fixtures).

Always wash hands following cleaning and disinfecting facilities.

How to clean up vomit and diarrhea. Take extra precautions for cleaning vomit and diarrhea. Open windows or use a fan for ventilation. Use personal protective equipment (gloves, face mask, eye protection, protective clothing). Clean the area to remove the vomit or diarrhea. Disinfect with a 5,000 ppm solution of bleach and water and allow it to sit on the surface for 1-2 minutes before wiping with a paper towel or air drying. Dispose of all soiled items in a garbage bag and remove it from your facility right away.

For more information, see the factsheet: "[How to Clean up Vomit, Diarrhea and Blood](#)"

How to Prepare and Select Cleaners and Disinfectants

Bleach is a commonly utilized disinfectant and instructions for its use are included below. If using bleach, a 5,000 ppm solution is needed with a 1 minute wet time to ensure inactivation of the Hepatitis A virus (see dilution instructions below).

Safe Use of Bleach

Bleach is a **respiratory irritant** and can be harmful to health (more information [here](#)).

- Use only in well-ventilated areas
- Do not mix with other cleaners (e.g., vinegar or ammonia) because dangerous gases can form.
- Avoid spray bottle application, “pour” or “pump” bottles are preferable and do not produce aerosols.
- Ensure an on-site eye-washing station is available using high concentration bleach ([link](#) to regulation per The Washington State Department of Labor and Industries).

How to Mix a Bleach Solution

- Identify the bleach/sodium hypochlorite % on the label and prepare your sanitizing or disinfecting solution based on the surface or area you are cleaning (see recipes below for different starting percentages of bleach).
- Use cool water, not warm or hot water, for mixing.
- Mix fresh solutions for sanitizing and disinfecting. If using a spray bottle, mix daily, and if using a bucket with rags, make a new batch every 2-4 hours.
- Always add the bleach to the water.
- Do not mix liquid bleach with other cleaning products – it can create hazardous fumes.
- Make a new bleach solution daily. It stops working after 24 hours.
- Use adequate PPE.

To make a 1 gallon 5,000 ppm bleach solution

Add 1 cup 8.25% bleach/sodium hypochlorite to 1 gallon of water

- OR -

Add 1 ½ cups 5.25% bleach/sodium hypochlorite to 1 gallon of water

Bleach Alternatives: Other disinfectants are available that are effective against COVID-19 and Hepatitis A. If you have a concern about respiratory irritants and are looking for other products to choose from see Appendix A: EPA Registered Disinfectants effective for SARS-CoV-2 and Hepatitis A during COVID-19. If choosing between different cleaners and disinfectants the following section may be helpful.

Cleaners - Over the counter cleaners are readily available. Cleaners that are safer for the environment and human health are encouraged if possible (e.g., look for Safer Choice, Green Seal, Ecologo, and Design for the Environment logos on product labels).



Disinfectants - Disinfectants that are effective for Hepatitis A should be chosen for use. Product labels should state that they are “effective against hepatitis A”. Alternatively, PHSKC has compiled a list of disinfectants known to be effective for both COVID-19 and Hepatitis A (see Appendix A). Follow instructions for use on the product label. Some disinfectants effective for both COVID-19 and Hepatitis A may also have the logos listed above.

RESOURCES

Hygiene Facility Standards

- World Health Organization - [Essential environmental health standards in health care](#)
- Los Angeles City: Health Commission Report 2018 - [Bathrooms](#)
- San Francisco Public Works – [PitStop Program](#)
- San Francisco Press Release - [Rollout of New Staffed Public Toilets and Hand-Washing Stations in High-Need Neighborhoods](#)
- Los Angeles County – [Increased Mobile Handwashing in response to COVID-19](#)

General guidance on cleaning

- King County – [Hygiene and Sanitation Guidance for Homeless Service Providers](#)
Includes guidance, checklists, and posters for:
 - Cleaning and disinfection instructions
 - Check list for cleaning and PPE
 - Instructional sheet on how to set up a temporary handwashing station
 - Guide to selecting a disinfectant and how to read a disinfectant label
- King County - [Routine cleaning, sanitizing and disinfecting guidelines for homeless shelters](#)
- King County - [General Cleaning and Disinfection Guidelines](#)
- [US Army Public Health Command general guidance on disinfection with bleach](#)
- California Department of Pesticide Regulation - [Hazards of Bleach](#)
- Washington DOSH Directive on [Emergency Washing Facilities](#)

COVID-19 Specific Information

- [King County novel coronavirus information](#)
- Centers for Disease Control and Prevention - [Cleaning and Disinfecting Your Facility for Coronavirus](#)
- CDC - [Environmental Cleaning and Disinfection for Community Facilities](#)
- OSHA - [COVID-19 Infection Control and Prevention](#)

Hepatitis A Specific Information

- PHSKC – [Cleaning to kill Hepatitis A](#)
(Available in Amharic, Somali, Spanish, Russian, Tigrinya, Vietnamese)
- PHSKC - [Hepatitis A fact sheet](#)
- PHSKC - [Hepatitis A information for people living homeless](#)
(Available in Amharic, Arabic, Chinese, Korean, Russian, Somali, Spanish, Tigrinya, Vietnamese)
- California Department of Public Health - [Hepatitis A Environmental Sanitation Resources](#)
- Water Quality and Health Council - [Cleaning for Hepatitis A](#)

Safer Cleaning Information

- UWDEOHS - [Safer Cleaning, Sanitizing and Disinfecting Strategies to Reduce and Prevent COVID-19 Transmission](#)
- San Francisco Department of the Environment – [Safer Products and Practices for Disinfecting and Sanitizing Surfaces](#)

APPENDIX A

EPA Registered Disinfectants effective for SARS-CoV-2 and Hepatitis A during COVID-19 (Note this list was compiled 04/06/2020 and new product may have been added since that time)

Purpose of this list: This document is intended to provide a list of EPA registered disinfectants that are effective for both the novel coronavirus COVID-19 (which is caused by the virus SARS-CoV-2), and Hepatitis A (HAV). This list will be useful for facilities that are required or recommended to disinfect for Hepatitis A and COVID-19 such as homeless service providers, emergency shelters, and public hygiene facilities (toilets, handwashing, bathing).

How this list was comprised: This list was compiled utilizing EPA's List N: Products with Emerging Viral Pathogens AND Human Coronavirus claims for use against COVID-19 (updated 04/02/2020), and each product was then individually checked for efficacy for Hepatitis A by staff within PHSKC. Efficacy for Hepatitis A was either indicated on List N, on the product label, or on the efficacy testing submitted by the company to EPA with the product registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Once products identified effective for both viruses were compiled, the active ingredients were searched using Pharos, which integrates various hazard resources and provides access to publicly available **GreenScreen** chemical hazard assessments. The GreenScreen methodology evaluates substances based on a broad range of health and environmental endpoints and incorporates the use of hazard lists from a range of governmental and professional scientific bodies. Products on the disinfection list below are listed in order of increasing hazard, based on their active ingredients. It should be noted that hazard scores utilized for this list were ranked by GreenScreen criteria. Rankings reflect only inherent hazards of the active ingredients from available data from Pharos and are not a full risk assessment of the product or its components. More information about these tools can be found here ([Pharos](#) and [GreenScreen](#)). In addition to the GSLT scores for each chemical, dwell time needed for the product to kill Hepatitis A was considered, as well as the safety of the active ingredients based on guidance from the [University of Washington Department of Environment and Occupational Health, Design for the Environment](#), and the [San Francisco Department of the Environment](#). Products were grouped into three categories (green, yellow, orange) of increasing hazard or increasing unknowns/data gaps of the active ingredients based on the information described above (least to most hazardous/unknown) and alphabetized per category.

A note on choosing safer products: People working in janitorial professions are exposed to cleaners more frequently. Many of these can cause respiratory irritation or lead to asthma. When possible choose a product that has been certified to be safer for human health and the environment (e.g., look for Safer Choice, Green Seal, Ecologo, and Design for the Environment logos on product labels).



If there is no logo on the product label, the following active ingredients are safer choices if choosing between multiple products that are effective for your disinfecting needs (in this case disinfecting for COVID-19 and Hepatitis A): ethanol, isopropanol (isopropyl alcohol), hydrogen peroxide, L-Lactic acid, or citric acid. In addition, the King County Hazardous Waste Management Program recommends that when a product does not have a logo that indicates it is safer, then looking at the warning labels can

help prioritize which product to choose. Opt for products that do not contain “warning”, “caution”, “danger” or “poison” labeling. If that is not possible, choose products with “caution” or “warning” labels over those with “danger” or “poison” labeling. Finally, dwell time (also known as wet time) should be considered when choosing similar products. Shorter times reduce the potential for inhalation exposures.

Always follow the directions on the label for the correct mixing amounts and required personal protective equipment (PPE) to apply the product.

Products in the following table were grouped into three categories of increasing hazard based on their active ingredient(s) (least to most hazardous or most unknown) and alphabetized per category. Hazard categorization of active ingredients considered GreenScreen criteria, guidance on safety of common active ingredients, and dwell times (see below for more information).

**LIST OF EPA REGISTERED DISINFECTANTS EFFECTIVE FOR HEPATITIS A AND COVID-19
(as of 04/06/2020)**

Key:

Lower hazard	Intermediate hazard	Greater hazard/unknowns		
Commercially Available Product Name	Company/Distributor	EPA REG No.	Active Ingredient	Dwell Time (minutes)
PURELL Healthcare Surface Disinfectant	GOJO Industries, Inc.	84368-1-84150	Ethyl alcohol Isopropyl alcohol	1
Purell Multi Surface Disinfectant	GOJO Industries, Inc.	84368-1-84150	Ethyl alcohol Isopropyl alcohol	1
Purell Professional Surface Disinfectant	GOJO Industries, Inc.	84368-1-84150	Ethyl alcohol	1
Saginaw: - Clorox 4 In One Disinfecting Spray - Clorox Commercial Solutions® Clorox® 4-in-One Disinfectant & Sanitizer	Clorox Professional Products Company	67619-29	Ethanol	5
Urthpro	Urthtech LLC	84368-1	Ethanol	1
Avert Sporidical Disinfectant Cleaner	Diversey Inc	70627-72	Sodium hypochlorite	1
CaviCide Bleach	Metrex	46781-15	Sodium hypochlorite	3
Clorox Clean Up Cleaner + Bleach	The Clorox Company	5813-21	Sodium hypochlorite Sodium hydroxide CAS 1310-73-2	30 seconds
Clorox Commercial Solutions® Toilet Bowl Cleaner with Bleach1	Clorox Professional Products Company	67619-16	Sodium hypochlorite	10

Commercially Available Product Name	Company/Distributor	EPA REG No.	Active Ingredient	Dwell Time (minutes)
Clorox Commercial Solutions® Clorox® Clean-Up Disinfectant Cleaner with Bleach1	Clorox Professional Products Company	67619-17	Sodium hypochlorite	5
Clorox Healthcare® Bleach Germicidal Cleaner Spray	Clorox Professional Products Company	56392-7	Sodium hypochlorite	1
Clorox Healthcare® Fuzion® Cleaner Disinfectant	The Clorox Company	67619-30	Sodium hypochlorite	1
Clorox Toilet Bowl Cleaner Clinging Bleach Gel	The Clorox Company	5813-89	Sodium hypochlorite	10
CloroxPro™ Clorox® Germicidal Bleach	Clorox Professional Products Company	67619-32	Sodium hypochlorite	5
CSP-3002-3	The Proctor & Gamble Company	3573-77	Sodium hypochlorite	5
Dispatch	Clorox Professional Products Company	56392-8	Sodium hypochlorite	1
Fight Bac RTU	Betco Corporation	1839-83-4170	2-(2-butoxyethoxy)ethanol	10
Husky 814 Tuberculocidal Disinfectant	Canberra Corporation	1839-83-8155	2-(2-Butoxyethoxy)ethanol	10
Klorbleen	Medentech LTD	71847-7	Sodium dichloro-S-triazinetrione	1
Klorsept (similar to Quick Defense tabs by State Industries)	Medentech LTD	71847-6	Sodium dichloro-S-triazinetrione	1
Pure Bright Germicidal Ultra Bleach	KIK International LLC	70271-13	Sodium hypochlorite	5
Pure Bright Germicidal Ultra Bleach	KIK International LLC	70271-13	Sodium hypochlorite	5
Quick Defense Disinfectant Tabs	State Industrial Products	71847-6-70799	Sodium Dichloro-sTriazinetrione	unclear 4-10 min, check with company for Hepatitis A
Rely+On Multipurpose Disinfectant Cleaner	Lanxess Corporation	39967-138	Potassium peroxymonosulfate; Sodium choride	10
Sani-Cloth Bleach Germicidal Disposable Wipe	Professional Disposables International Inc	9480-8	Sodium hypochlorite	1

Commercially Available Product Name	Company/Distributor	EPA REG No.	Active Ingredient	Dwell Time (minutes)
Tecumseh B	KIK International LLC	70271-24	Sodium hypochlorite	5
Tulmult	Spartan Chemical Company Inc	5741-28	Sodium hypochlorite	0.5
Vital Oxide	Vital Solutions LLC	82972-1	Chlorine dioxide; Quaternary ammonium	5
Advantage	Wechem, Inc.	1839-83-34370	Mixed Quaternary Ammonium Chlorides	10
Airx 75 Antibacterial Heavy Duty Cleaner & Odor Counteractant	The Bullen Companies	1839-83-44089	n-Alkyl dimethyl ammonium chlorides CAS 68391-01-5 n-Alkyl ethylbenzyl ammonium chlorides CAS 68956-79-6	10
BioCide 100	BioCide Labs	1839-83-86117	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Citrus II Hospital Germicidal Deodorizing Cleaner	Beaumont Products, Inc.	1839-83-68939	Alkyl dimethyl benzyl ammonium chloride (C12-18) (CAS 68391-01-5); Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride (CAS 85409-23-0)	10
Clorox Commercial Solutions® Clorox® Disinfecting Spray	Clorox Professional Products Company	67619-21	Quaternary ammonium; Ethanol	10
Clorox Disinfecting Bathroom Cleaner	The Clorox Company	5813-40	Quaternary ammonium	10
Clorox Scentiva Bathroom Disinfectant Foamer	The Clorox Company	5813-40	Quaternary ammonium	10
Clubz Hospital Quat Cleaner	Superior Mfg.	1839-83-85984	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Dutch®Plus Ready-To-Use Disinfectant Spray	Franklin Cleaning Technology	1839-83-1124	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10

Commercially Available Product Name	Company/Distributor	EPA REG No.	Active Ingredient	Dwell Time (minutes)
Fresh Breeze TB	MISCO PRODUCTS	1839-83-8325	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Germi-Kleen Non-Acid Bowl & Bathroom Disinfectant	National Chemical Laboratories, Inc.	1839-83-2296	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
LX-0307 RTU QUAT CLEANER DISINFECTANT	ABC COMPOUNDING CO., INC	1839-83-3862	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Lysol Brand Lime & Rust Toilet Bowl Cleaner	Reckitt Benckiser LLC	777-81	Hydrochloric acid	10
QT-TB	Hillyard Industries, Inc./Central Sanitary Supply	1839-83-1658	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Quatricide TB	Pharmacial Research Labs., Inc.	1839-83-8714	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
READY-SET-GO!	MOMAR, Inc.	1839-83-1553	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Rex	Clorox Professional Products Company	67619-20	Quaternary ammonium	10
Sani Clean Disinfectant Detergent	Harvard Chemical, LLC.	1839-83-61524	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Sanicare TBX	Buckeye International, Inc.	1839-83-559	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Sanizide Plus Germicidal Solution	Safetec of America	1839-83-67161	n-Alkyl dimethyl ammonium chlorides n-Alkyl ethylbenzyl ammonium chlorides	10
Vanity GP	Reckitt Benckiser LLC	777-104	Hydrochloric acid	10

Disinfectant list resources

Disinfectants

- [EPA List N - Disinfectants that meet EPA's criteria for use against SARS-CoV-2, the novel coronavirus that causes the disease COVID-19](#)
- [American Chemistry Council-Novel Coronavirus \(COVID-19\) Fighting Products](#)
- [Iowa State Center for Food Security and Public Health - Disinfection Resources](#)

Safer Cleaning Information

- UWDEOHS - [Safer Cleaning, Sanitizing and Disinfecting Strategies to Reduce and Prevent COVID-19 Transmission](#)
- San Francisco Department of the Environment – [Safer Products and Practices for Disinfecting and Sanitizing Surfaces](#)

Hazard Ranking

- Pharos – [Search Pharos](#)
- GreenScreen – [What is GreenScreen?](#)