

CASH Webinar

Maintenance and Operations Part Two: Sanitizing, Disinfecting and Cleaning Playgrounds, Athletic and Large Assembly Indoor/Facilities

Julie Arthur, CASH Chair, Palm Springs USD

Jeff Becker, CASH Vice Chair, Office of the Fresno Co. Supt. Of Schools



*Please see end of this document for additional handouts.

May 28, 2020

HOUSEKEEPING

- All Attendees are muted.
- If you would like to ask a question, please use the Chat feature.
 - Make sure you are messaging “**All Panelists and Attendees**” by using the drop down.
- This Webinar is being recorded and will be made available to CASH Members for future reference.



NEW & PERPLEXING DISTRICT RESPONSIBILITY STUDENT/TEACHER/CLASSIFIED EMPLOYEE INFECTION WORRY ORANGE COUNTY SCHOOLS RESPONSE: PROTOCOLS TO SAFEGUARD STUDENT AND EMPLOYEE HEALTH

Lance Bidnick
Newport Mesa USD
Ted Norman
Capo USD

Overview

- Governor's Roadmap to Reopening
 - Stage 2.5: Lower Risk Workplaces, including personal care and recreation
 - Modified School Programs and Childcare
- Coordinated Effort
 - Orange County Department of Education Efforts
 - Setting Expectations for Sound Decision-Making



Focus on Students and Staff

- Student Safety:
 - Facility Planning for Distancing
 - Screening and Health Checks
 - School Schedule
 - Increased Disinfecting
- School Site Staff Safety:
 - Distancing
 - Increased Responsibilities, Including Disinfecting
 - Physical Barriers
 - Indoor Air Quality



Indoor Air Quality

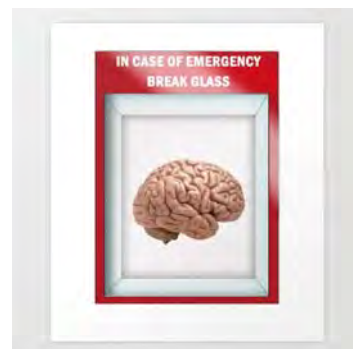
- EPA Tools for Schools
 - Proper Ventilation
 - Filtration
 - Preventive Maintenance
- Documentation of Maintenance Activities
- Increased Energy Usage
- Building Expectations Guide

Focus on Frontline Employees – M&O

- Maintenance and Operations:
 - Maintenance, Grounds, Custodial
- Employee Safety:
 - Distancing
 - Personal Protective Equipment
 - Training
 - Emergency Response
 - Coordination

In Case of Emergency

- Emergency Plan:
 - CDC Guidelines
 - District Staff vs Contractors
 - Training
 - Protective Equipment
 - Communication Plan
 - Written plan
 - Physical barriers
 - Signage
 - Clearances



Resources

- EPA Tools for Schools
 - <https://www.epa.gov/iaq-schools>
- Disinfectants Rated for Corona Virus
 - <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
- Healthy Schools Act
 - <https://apps.cdpr.ca.gov/schoolipm/>
- CDC Considerations for Schools (May 19,2020)
 - <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools.html>

MATERIALS, TOOLS & PROCEDURES: SANITIZING, CLEANING, AND DISINFECTING GYM/MPR FLOORS, BLEACHERS & TABLES

STUDENTS CANNOT WASH THEIR HANDS WHILE IN A GAME OR AT PLAY

Lynne Lees
KYA

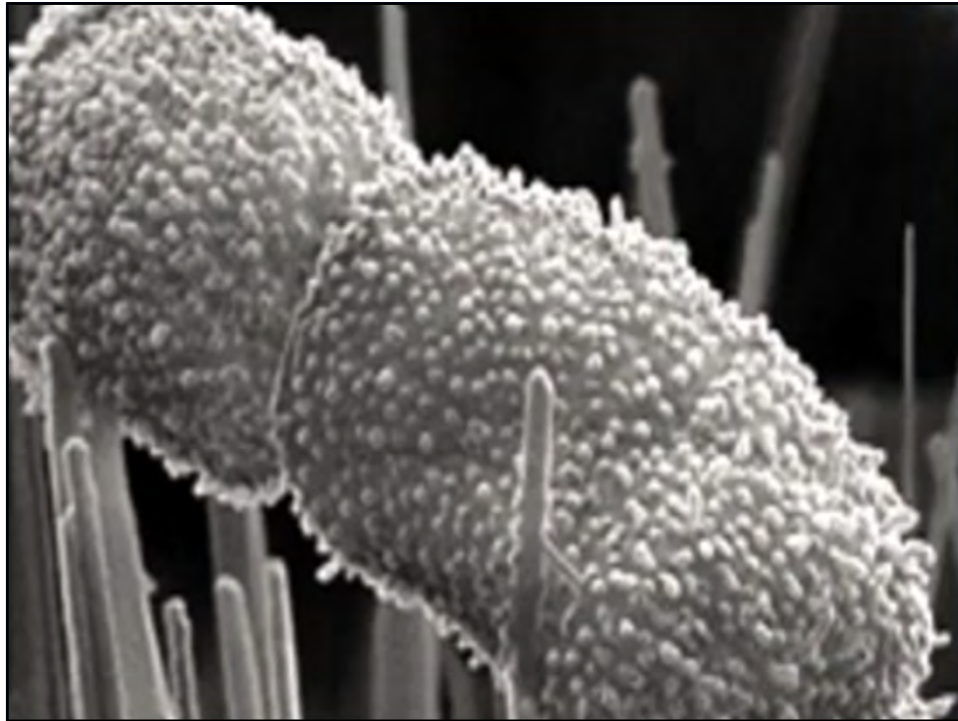


Cleaning and Disinfecting

Gyms, MPRs, Weight Rooms

Lynne Lees
PR Manager
KYA

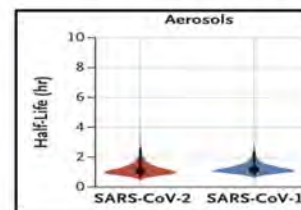
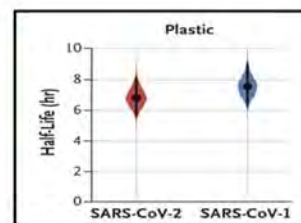




SARS-CoV-2

SAR-CoV-2 can persist on
hard surfaces

SARS-CoV-2 does not
persist in aerosols for long

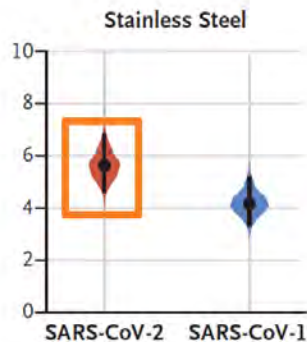


UCSF ID COVID Task Force

Van Doremalen NEJM 2020

The Virus Dies with Time

van Doremalen N, et al. *N Engl J Med.* 2020.



A "Half-Life" of 6 hours indicates:

100% at time of contamination

50% left 6 hours later

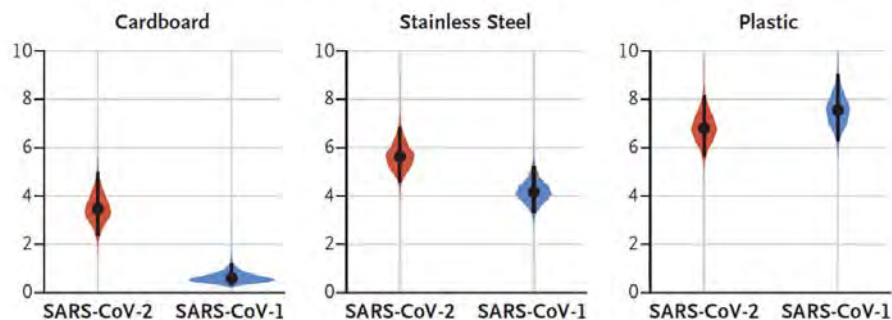
25% left 12 hours later

12.5% left 18 hours later

6.25% left 24 hours later

Half-Life (hrs) of Viable SARS-CoV-2

van Doremalen N, et al. *N Engl J Med.* 2020.



Viral Transfer to Fingertip

Lopez GU, et al. *Appl Environ Microbiol.* 2013.

Amount of virus (MS2 bacteriophage) transferred from given surface to a fingertip after 10 seconds of contact

On Non-Porous Surfaces



Stainless Steel

7% in low humidity

37% in high humidity



On Porous Surfaces

Paper Currency

<1% under both conditions



Cotton

<1% under both conditions

Polyester

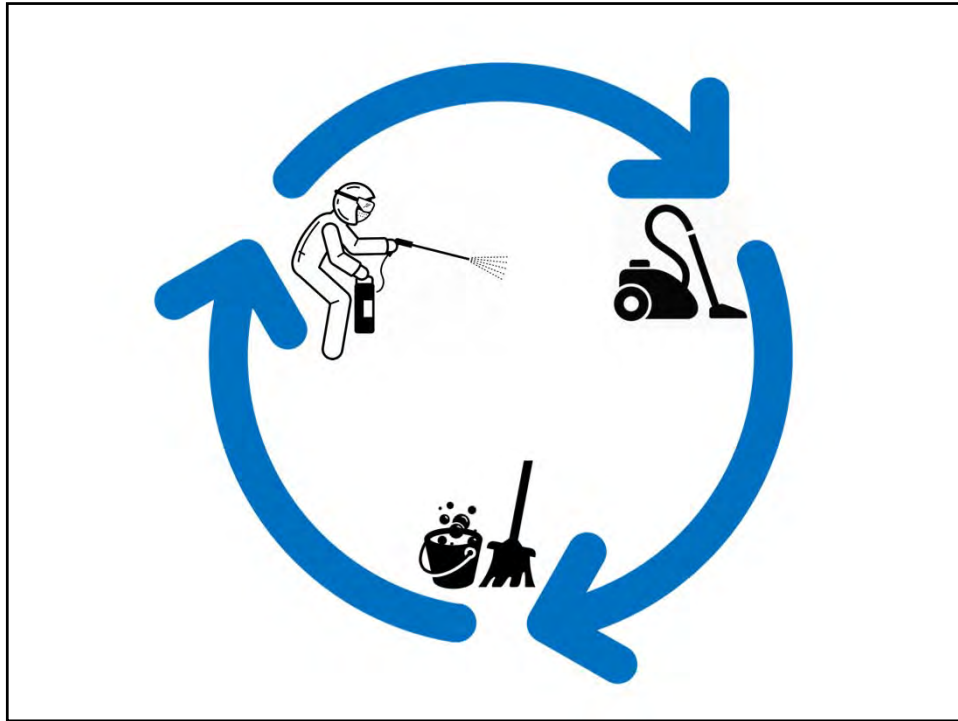
<1% in low humidity

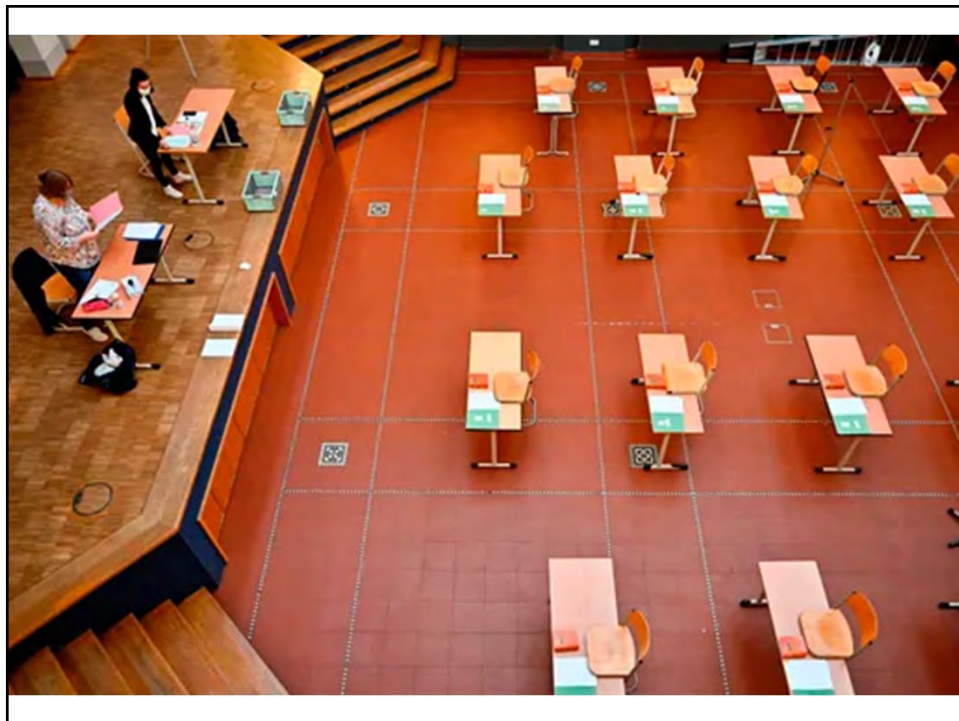
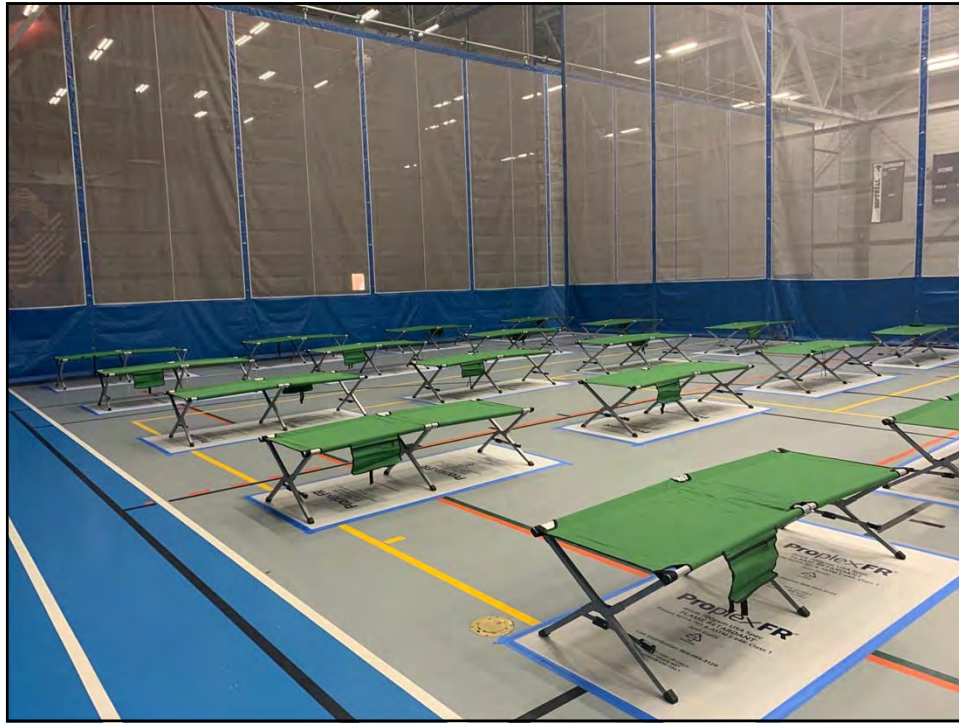
2% in high humidity

Personal Protective Equipment for the COVID-19 Pandemic: An Evidence-Based Approach



Gymnasiums

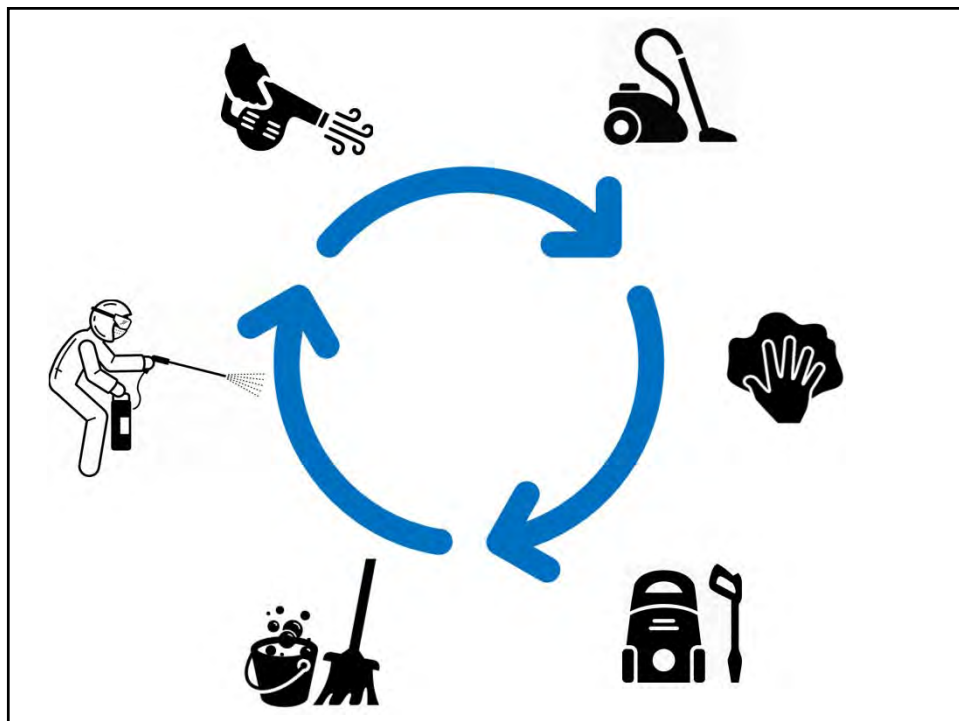
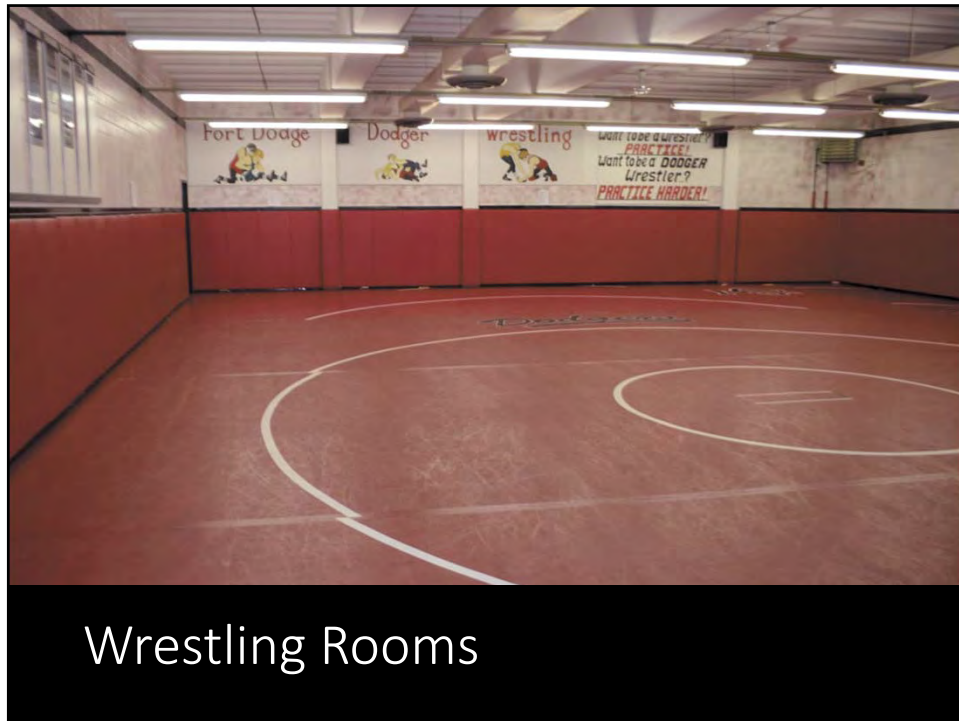




Weight Rooms



Locker Rooms



Bleachers



The Power of (Simulated) Sunlight

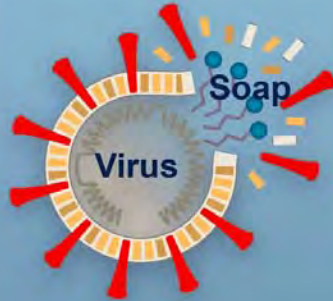
Schuit M, et al. *Jnl Infec Dis.* 2019.

- Simulated sunlight lab experiment to evaluate influenza decay rate
- Half-life of influenza in darkness: **30 mins**
- Half-life of influenza in full intensity simulated sunlight: **2 mins**

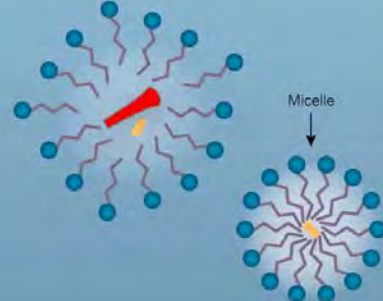


Soap Works.

SOAP DESTROYS THE VIRUS when the water-shunning tails of the soap molecules wedge themselves into the lipid membrane and pry it apart.



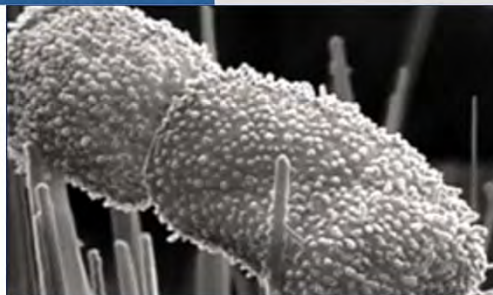
SOAP TRAPS DIRT and fragments of the destroyed virus in tiny bubbles called micelles, which wash away in water.



Disruptive Coatings

Comparative Analysis

	Silane-based	Silver-based	Triclosan-based
Mode of action	Physically ruptures cell membrane	Releases ionic free radicals that react with cell DNA and disrupt critical life processes in the cell.	Releases bischlorinated phenol (PCB) for consumption or cellular absorption causing lethal mutations in the cell.
Durability	Semi-Permanent to Permanent	Embedded in or on fiber binder or coating.	Embedded in or on fiber binder or coating.
Cost	Economical	Expensive	Moderate
Adaptive organisms	Does not promote adaptive organisms	Can create adaptive zones.	Can create adaptive zones.
In-plant safety/handling	Mild eye irritation	Harmful if inhaled, harmful if absorbed through skin, moderate eye irritation.	Moderate eye irritation, harmful if absorbed through skin, avoid contact with skin, eyes, or clothing. Do not breathe dust



Resources:

SF Environment summary on alternate disinfecting products:

https://sfenvironment.org/sites/default/files/fliers/files/sfe_th_safer_products_and_practices_for_disinfecting.pdf

CDE Decision Tool:

https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/ReOpening_America_Cleaning_Disinfection_Decision_Tool.pdf

National Council on School Facilities:

<https://www.facilitiescouncil.org/covid19-guidance>

National Facilities News:

<https://www.facilitiescouncil.org/news>

SPECIFIC SANITIZING AND CLEANING OF OUTDOOR PLAY EQUIPMENT AND SAFETY SURFACES

IS MY PLAYGROUND SANITIZED?

Kenda Daria
FlexGround

ARTIFICIAL FIELD AND TRACK SANITIZING PROCEDURES

WE WANT VICTORY NOT VIRUS

Greg Morales
AFE Sport

OUR GOAL:

1. To assist our colleagues in school districts.
2. To build trust with students and parents.
3. To build trust with the community.
4. To clean, sanitize and disinfect artificial turf and synthetic tracks.

TO BUILD TRUST YOU MUST:

- ❖ Develop your plan
- ❖ Implement your plan
- ❖ Maintain and revise your plan

TO BUILD TRUST YOU MUST:

Recommended Practices:

- ❖ Clean surfaces with approved products recommended by the manufacturer to ensure products do not harm “their” surfaces.
- ❖ Follow all CDC guidelines for disinfecting.

TO BUILD TRUST YOU MUST:

Recommended Products:

- ❖ Industry manufacturers are working with different chemical manufacturers, all of which are supplying products that will work on minimizing the COVID 19 virus.
- ❖ Refer to the EPA which identifies over hundreds of products with emerging Viral Pathogens AND Human Coronavirus claims for use against SARS-CoV-2

TO BUILD TRUST YOU MUST:

Recommended Timeframes:

- ❖ Each new usage starts the "new" clock of "infecting".
- ❖ Frequent disinfecting is suggested per the CDC guidelines.

RESOURCES:

www.cdc.gov

www.epa.gov

www.syntheticurfCouncil.org

www.dmasportsdesigngroup.com


MANAGING CIVIC CENTER ACT REQUESTS AND USES

Marty Hom

Atkinson, Andelson, Loya, Ruud & Romo

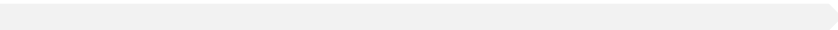
THE CIVIC CENTER ACT

Every public school facility is considered a civic center where citizens, school-community councils, and clubs as well as senior, recreation, education, political, artistic, and other organizations may meet. (Ed. Code § 38131(a))



THE CIVIC CENTER ACT

The management, direction and control of school facilities and grounds is vested in the Board which may grant the use of school facilities and grounds as a civic center upon the terms and conditions approved by the Board.



THE CIVIC CENTER ACT

- Board Policies and Administrative Regulations

Application and Agreement for Use of Facilities

Hold Harmless Agreement

Certificate of Insurance

Terms and Conditions for Use



THE CIVIC CENTER ACT

- Terms and Conditions for Use

Update to include social distancing requirements (check CDC and local requirements)

State Covid-19 Industry Guidance: Places of Worship



THE CIVIC CENTER ACT

- Recalculate Usage Fees (Ed. Code § 38134)

Youth Sports and Religious – not to exceed direct costs

- direct costs
- operational direct costs

Entertainment - fair market value

Questions & Answers

- Please use the Chat feature on your screen to ask questions.
 - Make sure you are messaging “All Panelists and Attendees” by using the drop down.

UPCOMING WEB EVENTS

Thank you for attending today's webinar.

Please mark your calendars for these future dates and topics:

Thursday, June 4, 2020
10:00 a.m. – 12:15 p.m.

**Communications: Parents,
Students, Employees and
Community**



Stay safe out there!
-CASH



Disclaimer About Event Materials: The presentation materials utilized for this event were prepared by individual presenters. As with all CASH events, the presentation and materials are not intended to constitute legal advice. School district and county office of education personnel should consult with legal counsel for advice on specific issues and applications of any laws.

Application of Disinfectant to Sports and Play Equipment

Playground – Equipment

1. Pick solution
2. Dilute per instructions in spray bottle or power washer
3. Spray and Wipe

Playground Surfaces

1. Pick solution
2. Power wash and broom off excess to drain away and rinse excess off.

Field and Track Application – in-house staff

1. Pick the solution of choice – 30 second kill time with pH above 9, and highly acidic cleaners with pH below 4.
2. Groom or blow to remove debris from the field to ensure as much surface debris is removed.
3. Add solution to boom sprayer or any type of unit that can spray the field or track.



4. Spray the field and saturate the surface with the diluted solution.
5. Hook-up groomer and groom the field to ensure it's worked into the top of the infill and remove any residue. Rinse the field or areas that have large residue build up.



Application duration is depending on the product utilized on the field. If your field has irrigation or the ability to water the field, I suggest watering the field every 60 – 90 days to rinse off dust and other surface spills or debris that may have occurred during usage. California's use fields 360 days a year which is unlike most other states that have seasons that shut down outdoor facilities.

Application of Disinfectant to Sports and Play Equipment

The track surfacing use the same boom sprayer and then use hose or power washer (very lightly) to rinse the solution off the surface.

If the facility has a service contractor that service the field, I would recommend having them apply disinfectant during the yearly or bi-yearly cleaning. If the facility does not have an outside contractor contact a local turf or sports facility builder for an application.

Blood, vomit, animal waste and other contaminants must be removed from the field surface with paper towels or a dry absorbent, and the area treated with a disinfectant or enzymatic cleaning agent. Mix the cleaner according to the manufacturer's instructions and apply to the surface with a low-pressure sprayer until thoroughly wet. Allow the surface to remain wet for at least 10 minutes before rinsing thoroughly with clean water.

Mildew, fungus, or mold spots can be removed with a solution of one-percent hydrogen peroxide and water. Once discovered, mold and algae spots should be treated promptly; if allowed to become established, removing such growth can be very difficult. Thoroughly flush the area with water after application.

Avoid the use of Clorox, any solution containing bleach, highly caustic detergent cleaners (with pH above 9), and highly acidic cleaners (with pH below 4) as damage and discoloration to the turf and other components of the system may occur.

BioCide 100

SKU: 850076005016, 850076005023

BioCide 100 is designed specifically as a general, non-acid, ready-to-use, non-abrasive cleaner and disinfectant. BioCide 100 kills **99.9%** of mold, mildew & fungi. In addition, this product is capable of dissolving mold spores at the cellular level. It is highly effective against pathogenic disease-causing fungi, bacteria & viruses. BioCide 100 is the best EPA registered mold cleaning solution.



THE PREFERRED PRODUCT OF PROFESSIONAL MOLD REMEDIATORS AND WATER MITIGATION SPECIALISTS

FEATURES AND BENEFITS

- EPA registered
- Ready to use - no dilution needed
- Kills 99.9% of mold, mildew, and fungi
- Kills 99.9% of bacteria and viruses
- Meets OSHA blood-borne pathogen standard for HIV, HBV & HCV
- Cleans and deodorizes in one easy step
- HVAC certified

APPLICATION

- Residential & Commercial Buildings
- Homes
- Vehicles
- Hospitals
- Nursing Homes
- Restaurants
- Boats
- Office Buildings
- Apartment Complexes
- Churches
- Airports
- Resorts
- Condominiums
- Auditoriums
- Daycares
- And more

TO USE



Direct Wipedown



Bucket & Sponge



Pressurized
Sprayer

HVAC SYSTEMS

- Air Conditioners
- Commercial Air Handlers
- HVAC Cooling Coils
- Refrigeration Equipment
- Refrigerators and Freezers
- Evaporator Coils

INDUSTRIES

- Commercial Properties
- Factories and Manufacturing Plants
- Food Storage, Processing and Packaging Plants
- Hospitals
- Medical and Dental Offices
- Veterinary Offices
- Schools and Colleges
- Hotels and Motels
- Restaurants
- Office Space
- Industrial Warehouses
- And more

KILLS

In addition to killing **99.9%** of mold, BioCide 100 is also effective against:

- Avian Influenza Virus, Type A
- Bovine Viral Diarrhea Virus
- Canine Parvovirus
- Feline Calicivirus
- Hepatitis A, B and C Virus
- Human Immunodeficiency Virus (associated with AIDS)
- Human Coronavirus
- Norovirus
- Paramyxovirus
- Poliovirus Type I, Strain Brunhilde
- Rabies Virus
- Rhinovirus
- SARS Associated Coronavirus
- Staphylococcus Aureus
- Salmonella
- Pseudomonas Aeruginosa

SPECIFICATIONS

Physical Form.....Liquid pH.....8.2
Color.....Clear Flammability.....Non-Flammable

PACKAGING

Quart, Gallon, 275 Gallon Tote

EFFECTIVE AS

- Fungicide
- Mildewstat
- Virucide
- Tuberculocidal
- Bactericidal
- Pseudomonacidal
- Staphylocidal
- Salmonellacidal
- Sanitizer
- Germicide
- Deodorant

COMPANION PRODUCTS

Mold Bomb Fogger, Carpet Bomb, BioWash, Clean Room

Implementation of Mitigation Strategies for Communities with Local COVID-19 Transmission

Background

When a novel virus with pandemic potential emerges, nonpharmaceutical interventions, which will be called community mitigation strategies in this document, often are the most readily available interventions to help slow transmission of the virus in communities. Community mitigation is a set of actions that persons and communities can take to help slow the spread of respiratory virus infections. Community mitigation is especially important before a vaccine or drug becomes widely available.

The following is a framework for actions which local and state health departments can recommend in their community to both prepare for and mitigate community transmission of COVID-19 in the United States. Selection and implementation of these actions should be guided by the local characteristics of disease transmission, demographics, and public health and healthcare system capacity.

Goals

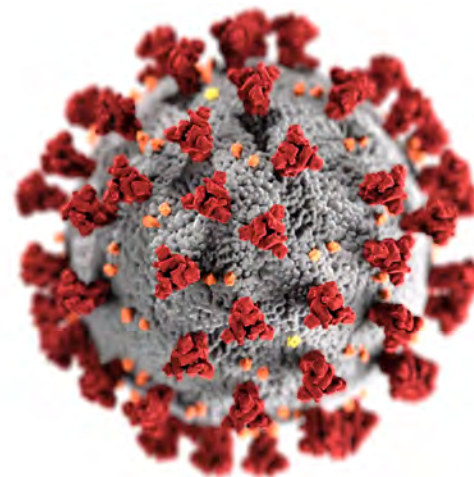
The goals for using mitigation strategies in communities with local COVID-19 transmission are to slow the transmission of disease and in particular to protect:

- Individuals at increased risk for severe illness, including older adults and persons of any age with underlying health conditions (See Appendix A)
- The healthcare and critical infrastructure workforces

These approaches are used to minimize morbidity and mortality and the social and economic impacts of COVID-19. Individuals, communities, businesses, and healthcare organizations are all part of a community mitigation strategy. These strategies should be implemented to prepare for and when there is evidence of community transmission. Signals of ongoing community transmission may include detection of confirmed cases of COVID-19 with no epidemiologic link to travelers or known cases, or more than three generations of transmission.

Implementation is based on:

- Emphasizing individual responsibility for implementing recommended personal-level actions
- Empowering businesses, schools, and community organizations to implement recommended actions, particularly in ways that protect persons at increased risk of severe illness
- Focusing on settings that provide critical infrastructure or services to individuals at increased risk of severe illness
- Minimizing disruptions to daily life to the extent possible



Guiding principles

- Each community is unique, and appropriate mitigation strategies will vary based on the level of community transmission, characteristics of the community and their populations, and the local capacity to implement strategies (Table 1).
- Consider all aspects of a community that might be impacted, including populations most vulnerable to severe illness and those that may be more impacted socially or economically, and select appropriate actions.
- Mitigation strategies can be scaled up or down depending on the evolving local situation.
- When developing mitigation plans, communities should identify ways to ensure the safety and social well-being of groups that may be especially impacted by mitigation strategies, including individuals at increased risk for severe illness.
- Activation of community emergency plans is critical for the implementation of mitigation strategies. These plans may provide additional authorities and coordination needed for interventions to be implemented (Table 2).
- Activities in Table 2 may be implemented at any time regardless of the level of community transmission based on guidance from local and state health officials.
- The level of activities implemented may vary across the settings described in Table 2 (e.g., they may be at a minimal/moderate level for one setting and at a substantial level for another setting in order to meet community response needs).
- Depending on the level of community spread, local and state public health departments may need to implement mitigation strategies for public health functions to identify cases and conduct contact tracing (Table 3). When applied, community mitigation efforts may help facilitate public health activities like contact tracing



For more information: www.cdc.gov/COVID19

Table 1. Local Factors to Consider for Determining Mitigation Strategies

Factor	Characteristics
Epidemiology	<ul style="list-style-type: none">• Level of community transmission (see Table 3)• Number and type of outbreaks (e.g., nursing homes, schools, etc.)• Impact of the outbreaks on delivery of healthcare or other critical infrastructure or services• Epidemiology in surrounding jurisdictions
Community Characteristics	<ul style="list-style-type: none">• Size of community and population density• Level of community engagement/support• Size and characteristics of vulnerable populations• Access to healthcare• Transportation (e.g., public, walking)• Planned large events• Relationship of community to other communities (e.g., transportation hub, tourist destination, etc.)
Healthcare capacity	<ul style="list-style-type: none">• Healthcare workforce• Number of healthcare facilities (including ancillary healthcare facilities)• Testing capacity• Intensive care capacity• Availability of personal protective equipment (PPE)
Public health capacity	<ul style="list-style-type: none">• Public health workforce and availability of resources to implement strategies• Available support from other state/local government agencies and partner organizations



DECON 30...



Kills 99.99% in 30 Seconds!*
One Step Disinfectant + Cleaner
No Health Warnings, No Rinsing, No PPE
Porous & Non-Porous Surfaces
Pleasant Light Fragrance

Bactericidal, **Virucidal, Fungicidal, Mildewstat, Carpet Sanitizer

Decon 30 utilizes Benefect's proprietary essential oil Active Ingredient instead of using traditional synthetic chemicals. The very pleasant light fragrance dissipates quickly leaving no harsh fumes or harmful residue. Additionally, Decon 30 is formulated with our unique Optimized Dynamic Chemistry (ODC) surfactant system that boosts cleaning performance while still achieving hospital level disinfection. The ODC system also enhances mold killing and mildew prevention!

Fast and Effective Decontamination

Decon 30 is specially formulated for the professional restoration contractor's needs. It cleans and sanitizes in just 30 seconds, making it ideal for fast decontamination of equipment, PPE and even vertical surfaces like wood studs or concrete walls. Now contractors can save time and money by using Decon 30 to clean and disinfect in one easy step!

Controlling bacteria on porous surfaces, carpet and soft contents is now possible without using synthetic chemicals. Being the first Botanical Carpet Sanitizer and Deodorizer registered with the EPA, Decon 30 is specifically formulated for penetrating into porous carpet materials and is also WoolSafe Approved.

Safely and effectively tackle more jobs with the comfort and confidence that comes from using Benefect products.

Ideal for disinfecting, cleaning, deodorizing, decontaminating, preventing cross-contamination in residential and commercial buildings, food service, hospitals, medical clinics, schools and government buildings.

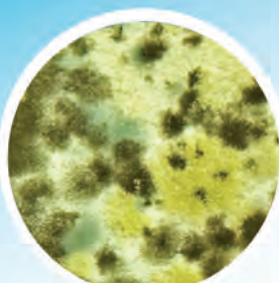


Water Damage



Decontaminate

Mold



Deodorize

Commercial Cleaning



Contents

Carpet Spray



Porous Surfaces



Do You Worry About The Toxicity Of The Antimicrobials You Use To Kill Germs?

Benefect's botanical Active Ingredient is identified by the EPA as having no known adverse effects to human health or the environment. Benefect is classified under the EPA's lowest toxicity rating allowed by law for all routes of exposure, which include: inhalation, ingestion, skin irritation, skin sensitization and eye irritation.

Use Xactimate's Code For Botanical Germicide: WTR>GRMB

FEATURES

Government
Registered
Disinfectant

BENEFITS

All label claims are approved by the EPA.
Proven to kill over 99.99% of the EPA's test microorganisms
for claims of hospital disinfectant effectiveness.
Registered for sale in all States and Puerto Rico.

Environmental Protection Agency (EPA)
EPA Reg. No. 84683-3-74771

VERIFICATION

Antimicrobial Efficacy

Hospital Disinfectant / Bactericidal, Virucidal, Fungicidal, Mildewstat, Carpet Sanitizer
**Kills over 99.99% of: *Pseudomonas aeruginosa*, *Salmonella enterica*, *Staphylococcus aureus*, Methicillin Resistant *S. aureus* (MRSA), *Escherichia coli* O157:H7 (*Kills *S. aureus* & *E. coli* in 30 seconds), Influenza A virus, H1N1 Influenza A virus, Influenza A Avian (H3N2) virus, Rhinovirus type 37, Human Immunodeficiency Virus (HIV) Type 1), Norovirus, Trichophyton mentagrophytes, *Aspergillus niger* & *Candida albicans*.
Effectively eliminates odors produced by odor causing bacteria.
No antimicrobial resistance.

EPA Approved
Product Label

No Rinse or Wipe Required

On food contact surfaces & children's toys.
No harmful residue that must be removed.
Save an entire labor step - save money & finish jobs faster.
Reduce your liability.
No PPE required (unless contaminant itself requires PPE).

EPA Approved Product Label
SDS
USDA Self Guarantee

Unprecedented Toxicity Rating

Uses thymol from botanical essential oils.
LD50 (Oral, Rat) of >14,000 mg/kg (less toxic than vinegar).
EPA Category IV Toxicity for all routes of exposure: inhalation,
dermal, eye & ingestion (lowest toxicity rating allowed by law).
Ingredients listed as Generally Recognized As Safe (G.R.A.S.)
or as Direct Food Additives by the FDA.
Non-hazardous by OSHA/WHMIS criteria.
Non-flammable, non-corrosive (pH 4.0-5.0), non-reactive, mildly anionic.

EPA Approved Product Label
FDA GRAS & Food Additives List
Toxicity & Chemical Analysis
EPA's List 25(b)
SDS

HMIS Hazard Ratings	
HEALTH	0
FLAMMABILITY	0
REACTIVITY	0

No Warnings on the Label and No PPE Required

Reduced liability.
The only Authentically Botanical Disinfectant in North America.
No warnings, signal words, first aid, precautionary statements,
special handling or PPE requirements listed on the label.
The sensible choice for employees & clients.

EPA Approved Product Label
SDS

Ready to Use Formula

Consistent efficacy performance, every time.
No mixing hassles or complex dilution instructions.
No health concerns due to inaccurate mixing.
No water hardness testing required for product performance.
No temperature restrictions - freeze - thaw stable.
Fogable and foamable.

EPA Approved Product Label

Ecological Data

Environmentally Certified - Readily Biodegradable & No Aquatic Toxicity.
Made from botanical essential oils.
No synthetic fragrances, dyes, ammonia or chlorine or endocrine disruptors.
100% Bio-Based Content, no petrochemicals or petroleum derivatives.
No volatile solvents or V.O.C.s (volatile organic compounds).



UL Ecologo 2794
Test Method: EPS 1/RM/24
Testing Guideline: OECD 301D
Test Method: D6866-16 B (AMS)
Patented Worldwide

Excellent Marketability

Ideal product for use in LEED certified buildings.
WoolSafe Approved product.
Preferred disinfectant for ANY green cleaning program.
Differentiate your business as the environmentally-friendly professional.



More information & SDS downloads:

www.Benefect.com

Authentically Botanical®

List N: Products with Emerging Viral Pathogens AND Human Coronavirus claims for use against SARS-CoV-2
Date Accessed: 03/30/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
84198-1	Hydrogen peroxide	Peroxy HDOX	Earth Laboratories Inc	Norovirus	5	Dilutable	Yes	03/26/2020
45745-11	Hydrogen peroxide	HP202	Midlab	Rotavirus; Norovirus; Rhinovirus	5	Dilutable	Yes	03/26/2020
65402-9	Peroxyacetic acid; Hydrogen Peroxide	VigorOx 15/10 Antimicrobial Agent	PeroxyChem LLC	Feline calicivirus	5	Dilutable	Yes	03/26/2020
1043-87	Phenolic	Vesphene II se	Steris Corporation	Adenovirus	10	Dilutable	Yes	03/26/2020
1043-91	Phenolic	LpH®	Steris Corporation	Adenovirus	10	Dilutable	Yes	03/26/2020
1839-100	Quaternary ammonium	Veterinarian Type Disinfectant	Stepan Company	Feline calicivirus; norovirus	10	Dilutable	Yes	03/26/2020
89833-3	Quaternary ammonium	D7 Part 1	Decon7 Systems LLC	Norovirus	10	Dilutable	Yes	03/26/2020
91399-2	Sodium chlorite	Biotab7	Advanced Biocide Technologies Inc	Feline calicivirus; norovirus	1	Dilutable	Yes	03/26/2020
70271-13	Sodium hypochlorite	Pure Bright Germicidal Ultra Bleach	KIK International LLC	Adenovirus; Rotavirus; Canine parvovirus; Feline panleukopenia virus; Hepatitis A virus; Norovirus; Poliovirus; Rhinovirus	5	Dilutable	Yes	03/26/2020
70271-31	Sodium hypochlorite	Nova	KIK International LLC	Rhinovirus	10	Dilutable	Yes	03/26/2020
82972-1	Chlorine dioxide; Quaternary ammonium	Vital Oxide	Vital Solutions LLC	Adenovirus; Canine parvovirus	10	RTU	Yes	03/26/2020
92108-1	Hypochlorous acid	Excelyte Vet	PCT LTD	Norovirus	10	RTU	Yes	03/26/2020
777-131	Hypochlorous acid	Cousteau	Reckitt Benckiser	Rhinovirus	10	RTU	Yes	03/26/2020

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44446-67	Phenolic; Ethanol	Concept Hospital Disinfectant Deodorant	Quest Specialty Corp	Rhinovirus; Canine hepatitis virus	10	RTU	Yes	03/26/2020
89900-2	Quaternary ammonium	Valalla 2	S.C. Johnson Professional	Rotavirus	5	RTU	Yes	03/26/2020
89900-3	Quaternary ammonium	Gertrude 2	S.C. Johnson Professional	Rotavirus	5	RTU	Yes	03/26/2020
4091-20	Quaternary ammonium	Phoenix 2	W.M. Barr & Company Inc	Rotavirus; Feline calicivirus; Rhinovirus	5	RTU	Yes	03/26/2020
93040-1	Sodium chloride	Force of Nature Activator Capsule	HCI Cleaning Products LLC	Feline calicivirus	10	RTU	Yes	03/26/2020
92987-1	Sodium chlorite; citric acid	Tristel Duo for Surfaces	Tristel Solutions LTD	Adenovirus; Feline calicivirus; Poliovirus	0.5	RTU	Yes	03/26/2020
67619-40	Sodium hypochlorite	TNT	Clorox Professional Products Company	Murine norovirus	1	RTU	Yes	03/26/2020
70060-19	Sodium chlorite; Sodium dischloroisocyanurate dihydrate	Aseptrol S10-Tab	BASF Corporation	Feline calicivirus	10	Solid	Yes	03/26/2020
56392-8	Sodium hypochlorite	Dispatch	Clorox Professional Products Company	Adenovirus	1	Towelette	Yes	03/26/2020
70144-4	Quaternary ammonium; Ethanol	Opti-cide Max Wipes	Micro-Scientific LLC	Rotavirus	1	Wipe	Yes	03/26/2020
84683-4	Thymol	Benefect Botanical Daily Cleaner Disinfectant Towelette	Cleanwell LLC	Rhinovirus	10	Wipe	Yes	03/26/2020
1677-233	Quaternary ammonium	Multi-Purpose Disinfectant Cleaner	Ecolab Inc	Feline calicivirus	10	Dilutable	Yes	03/19/2020
5813-120	Sodium hypochlorite	CRB	The Clorox	Canine parvovirus	10	Dilutable	Yes	03/19/2020

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			Company					
90150-2	Hydrogen peroxide	Binary Ionization Technology (BIT) Solution	Tomi Environmental Solutions Inc	Feline calicivirus	15	Fog; Mist	Yes	03/19/2020
675-55	Citric acid	Lysol Bathroom Cleaner	Reckitt Benckiser LLC	Poliovirus	5	RTU	Yes	03/19/2020
84526-6	Hydrogen peroxide; Silver	Halomist	Halosil International Inc	Feline calicivirus; Minute virus of men	10	RTU	Yes	03/19/2020
91582-1	Hypochlorous acid	Danolyte	Danolyte Global Inc	Adenovirus; Rhinovirus	10	RTU	Yes	03/19/2020
85134-1	Hypochlorous acid	Envirocleanse A	Envirocleanse LLC	Norovirus	10	RTU	Yes	03/19/2020
706-111	Quaternary ammonium	Claire Disinfectant Spray Q	Claire Manufacturing Company	Poliovirus	5	RTU	Yes	03/19/2020
1130-15	Quaternary ammonium; Isopropanol	Weiman Germicidal Solution	Weiman Products LLC	Rotavirus	3	RTU	Yes	03/19/2020
70144-1	Quaternary ammonium; Isopropanol	Opti-Cide 3	Micro-Scientific LLC	Rotavirus; Rhinovirus Type 14	2	RTU	Yes	03/19/2020
87518-6	Sodium hypochlorite	Sporex	HSP USA LLC	Norovirus; Canine parvovirus	1	RTU	Yes	03/19/2020
9480-9	Quaternary ammonium	AF3 Germicidal Disposable Wipe	Professional Disposables International Inc	Rotavirus; Adenovirus	3	Wipe	Yes	03/19/2020
9480-4	Quaternary ammonium; Isopropanol	Super Sani-Cloth Germicidal Disposable Wipe	Professional Disposables International Inc	Rhinovirus 39; Adenovirus	2	Wipe	Yes	03/19/2020
9480-8	Sodium hypochlorite	Sani-Cloth Bleach Germicidal Disposable Wipe	Professional Disposables International Inc	Adenovirus; Rotavirus; Canine parvovirus; Hepatitis A virus; Poliovirus Type 1; Rhinovirus Type 37; Feline calicivirus	1	Wipe	Yes	03/19/2020
74559-4	Hydrogen peroxide	Accel (Concentrate)	Virox	Poliovirus	5	Dilutable	Yes	03/13/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
		Disinfectant Cleaner	Technologies Inc					
1677-250	Hydrogen peroxide; Peroxyoctanoic acid; Peroxyacetic acid	Synergex	Ecolab Inc	Reovirus	5	Dilutable	Yes	03/13/2020
67619-41	Quaternary ammonium	PPD Dash	Clorox Professional Products Company	Rotavirus	10	Dilutable	Yes	03/13/2020
6836-136	Quaternary ammonium	Lonza Formulation S-18F	Lonza LLC	Feline calicivirus	10	Dilutable	Yes	03/13/2020
6836-139	Quaternary ammonium	Lonza Formulation R-82F	Lonza LLC	Feline calicivirus	10	Dilutable	Yes	03/13/2020
6836-277	Quaternary ammonium	BARDAC 205M-1.30	Lonza LLC	Norovirus	10	Dilutable	Yes	03/13/2020
6836-303	Quaternary ammonium	BARDAC 205M-5.2	Lonza LLC	Norovirus	10	Dilutable	Yes	03/13/2020
6836-346	Quaternary ammonium	Lonzagard RCS-256	Lonza LLC	Norovirus	5	Dilutable	Yes	03/13/2020
6836-347	Quaternary ammonium	Lonzagard RCS-128	Lonza LLC	Feline calicivirus; Enterovirus	5	Dilutable	Yes	03/13/2020
6836-348	Quaternary ammonium	Lonzagard RCS-128 PLUS	Lonza LLC	Feline calicivirus; Enterovirus	5	Dilutable	Yes	03/13/2020
6836-362	Quaternary ammonium	Nugen MB5A-128	Lonza LLC	Norovirus	5	Dilutable	Yes	03/13/2020
6836-363	Quaternary ammonium	Nugen MB5A-64	Lonza LLC	Norovirus	5	Dilutable	Yes	03/13/2020
6836-366	Quaternary ammonium	Nugen MB5N-64	Lonza LLC	Norovirus	5	Dilutable	Yes	03/13/2020
5813-100	Sodium hypochlorite	Puma	The Clorox Company	Canine parvovirus	10	Dilutable	Yes	03/13/2020
5813-102	Sodium hypochlorite	CGB1	The Clorox Company	Canine parvovirus	10	Dilutable	Yes	03/13/2020
67619-26	Sodium hypochlorite	Boris	Clorox Professional Products Company	Canine parvovirus	10	Dilutable	Yes	03/13/2020
74559-1	Hydrogen peroxide	Accel TB	Virox Technologies Inc	Poliovirus; Feline Calicivirus	1	RTU	Yes	03/13/2020

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74559-9	Hydrogen peroxide	Oxy-1 RTU	Virox Technologies Inc	Poliovirus	0.5	RTU	Yes	03/13/2020
67619-35	Peracetic acid; Hydrogen peroxide	Blacksmith	Clorox Professional Products Company	Rhinovirus	1	RTU	Yes	03/13/2020
67619-20	Quaternary ammonium	Rex	Clorox Professional Products Company	Hepatitis A virus	10	RTU	Yes	03/13/2020
83614-1	Quaternary ammonium	DETSAN24	Byotrol Inc	Feline calicivirus	5	RTU	Yes	03/13/2020
5813-109	Quaternary ammonium	Say Q	The Clorox Company	Rotavirus	10	RTU	Yes	03/13/2020
5813-118	Quaternary ammonium	Dash	The Clorox Company	Rotavirus	10	RTU	Yes	03/13/2020
44446-23	Quaternary ammonium	Germ Away	Quest Specialty Corp	Canine parvovirus	10	RTU	Yes	03/13/2020
6659-3	Quaternary ammonium	Spray Nine	ITW Permatex Inc	Norovirus; Rhinovirus; Poliovirus	0.5	RTU	Yes	03/13/2020
46781-12	Quaternary ammonium; Ethanol; Isopropanol	Cavicide 1	Metrex Research	Adenovirus; Rotavirus; Feline Calicivirus	3	RTU	Yes	03/13/2020
37549-2	Sodium hypochlorite	Micro-kill Bleach Solution	Medline Industries Inc	Norovirus	0.5	RTU	Yes	03/13/2020
46781-15	Sodium hypochlorite	Cavicide Bleach	Metrex Research	Poliovirus; Rhinovirus	3	RTU	Yes	03/13/2020
87742-1	Thymol	Thymox Disinfectant Spray	Laboratoire M2	Norovirus	4	RTU	Yes	03/13/2020
84150-2	Ethanol	Mitersaw	GOJO Industries Inc	Feline calicivirus	5	Wipe	Yes	03/13/2020
74559-3	Hydrogen peroxide	Accel TB Wipes	Virox Technologies Inc	Poliovirus	1	Wipe	Yes	03/13/2020
74559-10	Hydrogen peroxide	Oxy-1 Wipes	Virox Technologies Inc	Poliovirus	0.5	Wipe	Yes	03/13/2020
67619-9	Quaternary ammonium	PJW-622	Clorox	Rotavirus	3	Wipe	Yes	03/13/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
			Professional Products Company					
5813-58	Quaternary ammonium	Spruce-ups	The Clorox Company	Rotavirus	0.25	Wipe	Yes	03/13/2020
5813-113	Quaternary ammonium	CDW	The Clorox Company	Rotavirus	4	Wipe	Yes	03/13/2020
777-114	Quaternary ammonium	Lysol® Disinfecting Wipes (All Scents)	Reckitt Benckiser	Rotavirus	10	Wipe	Yes	03/13/2020
46781-13	Quaternary ammonium; Ethanol; Isopropanol	Caviwipes 1	Metrex Research	Adenovirus	3	Wipe	Yes	03/13/2020
37549-1	Sodium hypochlorite	Micro-kill Bleach Germicidal Bleach Wipes	Medline Industries Inc	Norovirus	0.5	Wipe	Yes	03/13/2020
46781-14	Sodium hypochlorite	Caviwipes Bleach	Metrex Research	Feline calicivirus	3	Wipe	Yes	03/13/2020
1677-238	Hydrogen peroxide	Peroxide Multi Surface Cleaner and Disinfectant	Ecolab Inc	Norovirus	2	Dilutable	Yes	03/03/2020
70627-58	Hydrogen peroxide	Oxy-Team™ Disinfectant Cleaner	Diversey Inc	Canine Parvovirus; Feline Picornavirus	5	Dilutable	Yes	03/03/2020
1677-129	Hydrogen peroxide; Peroxyacetic acid	Cosa Oxonia Active	Ecolab Inc	Poliovirus	10	Dilutable	Yes	03/03/2020
1677-237	Hydrogen peroxide; Peroxyacetic acid	Oxycide Daily Disinfectant Cleaner	Ecolab Inc	Feline Calicivirus; Rhinovirus	3	Dilutable	Yes	03/03/2020
1839-248	Quaternary ammonium	Stepan Spray Disinfectant Concentrate	Stepan Company	Rhinovirus	5	Dilutable	Yes	03/03/2020
47371-129	Quaternary ammonium	Formulation HWS-256	H&S Chemicals Division of Lonza LLC	Adenovirus	10	Dilutable	Yes	03/03/2020
47371-130	Quaternary ammonium	Formulation HWS-128	H&S Chemicals Division of	Adenovirus	10	Dilutable	Yes	03/03/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
			Lonza, LLC					
47371-131	Quaternary ammonium	HWS-64	H&S Chemicals Division of Lonza LLC	Adenovirus	10	Dilutable	Yes	03/03/2020
47371-192	Quaternary ammonium	Formulation HWS-32	H&S Chemicals Division of Lonza LLC	Adenovirus	10	Dilutable	Yes	03/03/2020
675-54	Quaternary ammonium	Lysol Brand Heavy Duty Cleaner Disinfectant Concentrate	Reckitt Benckiser LLC	Rotavirus	5	Dilutable	Yes	03/03/2020
6836-140	Quaternary ammonium	Lonza Formulation S- 21F	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
6836-266	Quaternary ammonium	BARDAC 205M-10	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
6836-278	Quaternary ammonium	BARDAC 205M-14.08	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
6836-302	Quaternary ammonium	BARDAC 205M-2.6	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
6836-305	Quaternary ammonium	BARDAC 205M-23	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
6836-349	Quaternary ammonium	Lonzagard RCS-256 Plus	Lonza LLC	Enterovirus D68; Norovirus	5	Dilutable	Yes	03/03/2020
6836-361	Quaternary ammonium	Nugen MB5A-256	Lonza LLC	Norovirus	5	Dilutable	Yes	03/03/2020
6836-364	Quaternary ammonium	Nugen MB5N-256	Lonza LLC	Norovirus	5	Dilutable	Yes	03/03/2020
6836-365	Quaternary ammonium	Nugen MB5N-128	Lonza LLC	Norovirus	5	Dilutable	Yes	03/03/2020
6836-70	Quaternary ammonium	BARDAC 205M-7.5	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
6836-75	Quaternary ammonium	Lonza Formulation S-21	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
6836-77	Quaternary ammonium	Lonza Formulation S- 18	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
6836-78	Quaternary ammonium	Lonza Formulation R- 82	Lonza LLC	Norovirus	10	Dilutable	Yes	03/03/2020
70627-24	Quaternary ammonium	Virex™ II / 256	Diversey Inc	Adenovirus Type 2	10	Dilutable	Yes	03/03/2020
777-89	Quaternary ammonium	Lysol Brand Clean &	Reckitt	Rotavirus WA	3	Dilutable	Yes	03/03/2020

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		Fresh Multi-surface Cleaner	Benckiser LLC					
63761-8	Quaternary ammonium; Hydrogen peroxide	Sterilex Ultra Disinfectant Cleaner Solution 1	Sterilex	Feline Calicivirus	10	Dilutable	Yes	03/03/2020
63761-10	Quaternary ammonium; Sodium carbonate Peroxyhydrate	Sterilex Ultra Step	Sterilex	Feline Calicivirus; Rotavirus	10	Dilutable	Yes	03/03/2020
71847-6	Sodium dichloro-S-triazinetriene	Klorsept	Medentech LTD	Hepatitis A virus; Coxsackievirus B3	1	Dilutable	Yes	03/03/2020
71847-7	Sodium dichloro-S-triazinetriene	Klorkleen	Medentech LTD	Hepatitis A virus; Coxsackievirus B3	1	Dilutable	Yes	03/03/2020
5813-111	Sodium hypochlorite	Clorox Disinfecting Bleach2	The Clorox Company	Canine Parvovirus; Feline Parvovirus	10	Dilutable	Yes	03/03/2020
5813-114	Sodium hypochlorite	Clorox Performance Bleach1	The Clorox Company	Canine Parvovirus; Feline Parvovirus	10	Dilutable	Yes	03/03/2020
67619-32	Sodium hypochlorite	CloroxPro™ Clorox® Germicidal Bleach	Clorox Professional Products Company	Canine Parvovirus; Coxsackievirus B3 Virus; Enterovirus D68; Norovirus; Feline Parvovirus; Hepatitis A Virus; Murine Norovirus; Poliovirus; Rhinovirus	5	Dilutable	Yes	03/03/2020
70627-72	Sodium hypochlorite	Avert Sporocidal Disinfectant Cleaner	Diversey Inc	Canine Parvovirus; Norovirus; Hepatitis A; Poliovirus Type 1	1	Dilutable	Yes	03/03/2020
67619-29	Ethanol	Saginaw	Clorox Professional Products Company	Coxsackievirus; Hepatitis A Virus; Rhinovirus; Rotavirus	5	RTU	Yes	03/03/2020
84368-1	Ethanol	Urthpro	Urthtech LLC	Hepatitis A virus	1	RTU	Yes	03/03/2020
777-132	Hydrochloric acid	Lysol Brand Power Plus Toilet Bowl Cleaner	Reckitt Benckiser LLC	Poliovirus Type 1	10	RTU	Yes	03/03/2020

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777-81	Hydrochloric acid	Lysol Brand Lime & Rust Toilet Bowl Cleaner	Reckitt Benckiser LLC	Poliovirus Type 1; Hepatitis A virus	10	RTU	Yes	03/03/2020
1677-251	Hydrogen peroxide	Peroxide Disinfectant And Glass Cleaner Rtu	Ecolab Inc	Norovirus	0.75	RTU	Yes	03/03/2020
5813-110	Hydrogen peroxide	Clorox Pet Solutions Advanced Formula Disinfecting Stain & Odor Remover	The Clorox Company	Enterovirus D68; Norovirus; Rhinovirus	5	RTU	Yes	03/03/2020
67619-24	Hydrogen Peroxide	Clorox Commercial Solutions® Hydrogen Peroxide Cleaner Disinfectant	Clorox Professional Products Company	Norovirus; Rhinovirus; Rotavirus	1	RTU	Yes	03/03/2020
67619-33	Hydrogen peroxide	Clorox Commercial Solutions® Clorox® Disinfecting Biostain & Odor Remover	Clorox Professional Products Company	Enterovirus, Norovirus; Rhinovirus Type 37	5	RTU	Yes	03/03/2020
70627-56	Hydrogen peroxide	Oxivir Tb	Diversey Inc	Norovirus; Rhinovirus; Poliovirus Type 1	1	RTU	Yes	03/03/2020
70627-74	Hydrogen peroxide	Oxivir 1	Diversey Inc	Canine Parvovirus; Enterovirus Type D68	1	RTU	Yes	03/03/2020
9480-14	Hydrogen Peroxide	Sani-HyPerCide Germicidal Spray	Professional Disposables International Inc	Norovirus	1	RTU	Yes	03/03/2020
1677-226	Hydrogen peroxide; Octanoic acid; Peroxyacetic acid	Virasept	Ecolab Inc	Norovirus; Rhinovirus	4	RTU	Yes	03/03/2020
1677-249	Isopropanol	Klercide 70/30 IPA	Ecolab Inc	Rhinovirus	5	RTU	Yes	03/03/2020
1839-220	Quaternary ammonium	SC-RTU Disinfectant Cleaner	Stepan Company	Poliovirus	5	RTU	Yes	03/03/2020
1839-83	Quaternary ammonium	Detergent	Stepan	Canine Parvovirus	10	RTU	Yes	03/03/2020

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		Disinfectant Pump Spray	Company					
4091-21	Quaternary ammonium	Condor 2	W.M. Barr & Company Inc	Rotavirus	5	RTU	Yes	03/03/2020
5813-115	Quaternary ammonium	Clorox Scentiva Bathroom Disinfecting Foam Cleaner	The Clorox Company	Rotavirus	5	RTU	Yes	03/03/2020
5813-40	Quaternary ammonium	Clorox Disinfecting Bathroom Cleaner	The Clorox Company	Rhinovirus	10	RTU	Yes	03/03/2020
67619-38	Quaternary ammonium	CloroxPro™ Clorox Total 360® Disinfecting Cleaner1	Clorox Professional Products Company	Coxsackievirus Type B3	5	RTU	Yes	03/03/2020
6836-152	Quaternary ammonium	Lonza Formulation DC-103	Lonza LLC	Norovirus	10	RTU	Yes	03/03/2020
6836-289	Quaternary ammonium	BARDAC 205M RTU	Lonza LLC	Norovirus	10	RTU	Yes	03/03/2020
777-70	Quaternary ammonium	Lysol Brand Cling & Fresh Toilet Bowl Cleaner	Reckitt Benckiser LLC	Rotavirus	0.5	RTU	Yes	03/03/2020
4091-22	Quaternary ammonium; Citric acid	Raptor 5	W.M. Barr & Company Inc	Rhinovirus	5	RTU	Yes	03/03/2020
42182-9	Quaternary ammonium; Ethanol	Firebird F130	Microban Products Company	Poliovirus; Norovirus	5	RTU	Yes	03/03/2020
777-127	Quaternary ammonium; Ethanol	Lysol® Disinfectant Max Cover Mist	Reckitt Benckiser LLC	Norovirus	10	RTU	Yes	03/03/2020
777-99	Quaternary ammonium; Ethanol	Lysol® Disinfectant Spray	Reckitt Benckiser LLC	Norovirus	10	RTU	Yes	03/03/2020
88494-3	Quaternary ammonium; Ethanol	Peak Disinfectant	North American Infection Control Ltd	Poliovirus Type 1; Rhinovirus	1	RTU	Yes	03/03/2020
9480-10	Quaternary ammonium; Ethanol; Isopropanol	Sani-Prime Germicidal Spray	Professional Disposables	Feline Calicivirus	3	RTU	Yes	03/03/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
			International Inc					
67619-21	Quaternary ammonium; Ethanol	Clorox Commercial Solutions® Clorox® Disinfecting Spray	Clorox Professional Products Company	Coxsackie Virus; Echovirus; Feline Calicivirus; Hepatitis A Virus; Poliovirus	10	RTU	Yes	03/03/2020
1677-235	Sodium hypochlorite	Bleach Disinfectant Cleaner	Ecolab Inc	Murine Norovirus; Poliovirus; Rhinovirus	1	RTU	Yes	03/03/2020
56392-7	Sodium hypochlorite	Clorox Healthcare® Bleach Germicidal Cleaner Spray	Clorox Professional Products Company	Canine Parvovirus; Feline Panleukopenia Virus; Hepatitis A Virus; Norovirus; Poliovirus; Rhinovirus	1	RTU	Yes	03/03/2020
5813-105	Sodium hypochlorite	Clorox Multi Surface Cleaner + Bleach	The Clorox Company	Rhinovirus; Canine Parvovirus; Feline Panleukopenia Virus; Norovirus; Poliovirus	1	RTU	Yes	03/03/2020
5813-21	Sodium hypochlorite	Clorox Clean Up Cleaner + Bleach	The Clorox Company	Norovirus; Poliovirus	5	RTU	Yes	03/03/2020
5813-89	Sodium hypochlorite	Clorox Toilet Bowl Cleaner with Bleach	The Clorox Company	Rhinovirus; Rotavirus	10	RTU	Yes	03/03/2020
67619-16	Sodium hypochlorite	Clorox Commercial Solutions® Toilet Bowl Cleaner with Bleach1	Clorox Professional Products Company	Rotavirus; Rhinovirus 39	10	RTU	Yes	03/03/2020
67619-17	Sodium hypochlorite	Clorox Commercial Solutions® Clorox® Clean-Up Disinfectant Cleaner with Bleach1	Clorox Professional Products Company	Norovirus	5	RTU	Yes	03/03/2020
67619-30	Sodium hypochlorite	GNR	Clorox Professional Products Company	Coxsackievirus; Feline Calicivirus; Feline Panleukopenia Virus; Minute virus of mice; Poliovirus; Rhinovirus Type	1	RTU	Yes	03/03/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
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777-83	Sodium hypochlorite	Lysol Brand Bleach Mold And Mildew Remover	Reckitt Benckiser LLC	Rhinovirus; Norovirus	0.5	RTU	Yes	03/03/2020
84150-1	Ethanol	PURELL Professional Surface Disinfectant Wipes	GOJO Industries Inc	Norovirus	5	Wipe	Yes	03/03/2020
67619-25	Hydrogen peroxide	Clorox Commercial Solutions® Hydrogen Peroxide Cleaner Disinfectant Wipes	Clorox Professional Products Company	Norovirus	2	Wipe	Yes	03/03/2020
70627-60	Hydrogen peroxide	Oxivir™ Wipes	Diversey Inc	Norovirus; Poliovirus Type 1; Rhinovirus Type 14	1	Wipe	Yes	03/03/2020
70627-77	Hydrogen peroxide	Oxivir 1 Wipes	Diversey Inc	Enterovirus Type D68	1	Wipe	Yes	03/03/2020
5813-79	Quaternary ammonium	Clorox Disinfecting Wipes	The Clorox Company	Rotavirus	4	Wipe	Yes	03/03/2020
67619-31	Quaternary ammonium	Clorox Commercial Solutions® Clorox® Disinfecting Wipes	Clorox Professional Products Company	Rotavirus	4	Wipe	Yes	03/03/2020
67619-37	Quaternary ammonium	Clorox Healthcare® VersaSure® Wipes	Clorox Professional Products Company	Norovirus	5	Wipe	Yes	03/03/2020
6836-313	Quaternary ammonium	Lonza Disinfectant Wipes	Lonza LLC	Rotavirus	10	Wipe	Yes	03/03/2020
6836-340	Quaternary ammonium	Lonza Disinfectant Wipes Plus 2	Lonza LLC	Norovirus	10	Wipe	Yes	03/03/2020
88494-4	Quaternary ammonium; Ethanol	Peak Disinfectant Wipes	North American Infection Control Ltd	Poliovirus Type 1; Rhinovirus	1	Wipe	Yes	03/03/2020
9480-12	Quaternary ammonium;	Sani-Cloth Prime	Professional	Feline Calicivirus	3	Wipe	Yes	03/03/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
	Ethanol; Isopropanol	Germicidal Disposable Wipe	Disposables International Inc					
67619-12	Sodium hypochlorite	Clorox Healthcare® Bleach Germicidal Wipes	Clorox Professional Products Company	Canine Parvovirus; Feline Parvovirus	3	Wipe	Yes	03/03/2020
3573-54	Citric acid	Comet Disinfecting Bathroom Cleaner	The Proctor & Gamble Company	Feline calicivirus; norovirus	10	Dilutable	No	03/26/2020
88089-2	Hydrogen peroxide; Peroxyacetic acid	Peridox	BioMed Protect LLC	Feline calicivirus; norovirus	2	Dilutable	No	03/26/2020
4959-16	Iodine	ZZZ Disinfectant	West Agro Inc	Poliovirus	10	Dilutable	No	03/26/2020
65402-3	Peroxyacetic acid; Hydrogen peroxide	VigorOx SP-15 Antimicrobial Agent	PeroxyChem LLC	Feline calicivirus; norovirus	5	Dilutable	No	03/26/2020
3862-179	Phenolic	Opti-Phene	ABC Compounding Co Inc	Human adenovirus	10	Dilutable	No	03/26/2020
39967-138	Potassium peroxymonosulfate; Sodium choride	Rely+On Multipurpose Disinfectant Cleaner	Lanxess Corporation	Feline calicivirus; norovirus	10	Dilutable	No	03/26/2020
1677-21	Quaternary ammonium	Mikro-Quat	Ecolab Inc	Feline calicivirus; norovirus	10	Dilutable	No	03/26/2020
1839-97	Quaternary ammonium	NP 12.5 (D&F) Detergent/ Disinfectant	Stepan Company	Adenovirus	10	Dilutable	No	03/26/2020
3573-96	Quaternary ammonium	Malibu Concentrate	The Proctor & Gamble Company	Feline calicivirus; norovirus	10	Dilutable	No	03/26/2020
675-30	Quaternary ammonium	Roccal II 10%	Reckitt Benckiser	Adenovirus	10	Dilutable	No	03/26/2020
1839-95	Quaternary ammonium	NP 4.5 (D & F) Detergent/ disinfectant	Stepan Company	Norovirus	10	Dilutable	No	03/26/2020
1839-80	Quaternary ammonium	NP 12.5 Detergent/	Stepan	Adenovirus	10	Dilutable	No	03/26/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
		Disinfectant	Company					
63761-5	Quaternary ammonium; Sodium carbonate peroxyhydrate	Sterilex Ultra Powder	Sterilex	Feline calicivirus; norovirus	10	Dilutable	No	03/26/2020
90643-1	Sodium chloride	MultiMicro Salt	Tennant Company	Feline calicivirus; norovirus	10	Dilutable	No	03/26/2020
1677-216	Sodium chlorite	Exspor Base Concentration	Ecolab Inc	Feline calicivirus; norovirus	5	Dilutable	No	03/26/2020
71847-2	Sodium dichloroisocyanurate	Klor-Kleen	Medentech LTD	Feline calicivirus; norovirus	10	Dilutable	No	03/26/2020
3573-77	Sodium hypochlorite	CSP-3002-3	The Proctor & Gamble Company	Feline calicivirus; norovirus	1	Dilutable	No	03/26/2020
70271-24	Sodium hypochlorite	Tecumseh B	KIK International LLC	Feline calicivirus; norovirus	5	Dilutable	No	03/26/2020
88494-2	Ethyl alcohol; Quaternary Ammonium	Wedge Disinfectant Wipes	North American Infection Control Ltd	Poliovirus	1	RTU	No	03/26/2020
88089-4	Hydrogen peroxide; Peroxyacetic acid	PeridoxRTU	BioMed Protect LLC	Canine parvovirus	3	RTU	No	03/26/2020
84526-1	Hydrogen peroxide; Silver	HaloSpray	Halosil International Inc	Feline calicivirus; norovirus	10	RTU	No	03/26/2020
777-104	Hypochloric acid	Vanity GP	Reckitt Benckiser LLC	Poliovirus	10	RTU	No	03/26/2020
87518-1	Hypochlorous acid	Hsp20	HSP USA LLC	Feline calicivirus; norovirus	1	RTU	No	03/26/2020
73232-1	Isopropyl alcohol; Quaternary ammonium	Alpet D2	Best Sanitizers Inc	Feline calicivirus; norovirus	5	RTU	No	03/26/2020
64240-65	Lactic acid	WC Complete	Combat Insect Control Systems	Rhinovirus	0.5	RTU	No	03/26/2020
34810-21	Phenolic	Ready To Use Wex-Cide	Wexford Labs Inc	Rhinovirus	10	RTU	No	03/26/2020
6836-245	Quaternary ammonium	CSP-46	Lonza LLC	Feline calicivirus; norovirus	10	RTU	No	03/26/2020
6836-333	Quaternary ammonium	MMR-4U	Lonza LLC	Feline calicivirus; norovirus	10	RTU	No	03/26/2020

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9480-11	Quaternary ammonium	BackSpray RTU	Professional Disposables International Inc	Feline calicivirus; norovirus	5	RTU	No	03/26/2020
3862-181	Quaternary ammonium	Foaming Disinfectant Cleaner	ABC Compounding Co Inc	Poliovirus	10	RTU	No	03/26/2020
61178-2	Quaternary ammonium	Public Places	Microgen Inc	Feline calicivirus	30	RTU	No	03/26/2020
70627-33	Quaternary ammonium	Envy Liquid Disinfectant Cleaner	Diversey, Inc.	Canine parvovirus	5	RTU	No	03/26/2020
706-65	Quaternary ammonium	Claire Disinfectant Bathroom Cleaner	Claire Manufacturing Company	Adenovirus	10	RTU	No	03/26/2020
777-71	Quaternary ammonium	Lysol Brand Foaming Disinfectant Basin Tub & Tile Cleaner II	Reckitt Benckiser LLC	Feline calicivirus; norovirus	10	RTU	No	03/26/2020
498-179	Quaternary ammonium; Ethanol	Champion Sprayon Spray Disinfectant Formula 3	Chase Products Co	Rhinovirus	10	RTU	No	03/26/2020
5741-28	Sodium hypochlorite	Tulmult	Spartan Chemical Company Inc	Feline calicivirus; norovirus	0.5	RTU	No	03/26/2020
11346-6	Sodium hypochlorite	Clorox HS	The Clorox Company	Feline calicivirus; norovirus	1	RTU	No	03/26/2020
64240-44	Sodium hypochlorite	Soft Scrub with Bleach	Combat Insect Control Systems	Rhinovirus	3	RTU	No	03/26/2020
70271-15	Sodium hypochlorite	2% Sodium Hypochlorite Spray	KIK International, Inc.	Rhinovirus	1	RTU	No	03/26/2020
777-102	Sodium hypochlorite	Lysol Brand Toilet Bowl Cleaner with Bleach	Reckitt Benckiser LLC	Rhinovirus	5	RTU	No	03/26/2020
84683-3	Thymol	Benefect Botanical Daily Cleaner	Cleanwell LLC	Feline calicivirus; norovirus	10	RTU	No	03/26/2020

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		Disinfectant Spray						
34810-25	Thymol	Ready to Use Thymol	Wexford Labs Inc	Feline calicivirus; norovirus	10	RTU	No	03/26/2020
34810-36	Citric acid	CleanCide Wipes	Wexford Labs Inc	Feline calicivirus; norovirus	5	Towelette	No	03/26/2020
1839-174	Quaternary ammonium	Stepan Towelette	Stepan Company	Feline calicivirus; norovirus	10	Towelette	No	03/26/2020
6836-379	Quaternary ammonium	Nugen NR Disinfectant Wipes	Lonza LLC	Feline calicivirus; norovirus	5	Towelette	No	03/26/2020
11346-3	Sodium hypochlorite	Clorox HW	The Clorox Company	Feline calicivirus; norovirus	1	Towelette	No	03/26/2020
70590-1	Sodium hypochlorite	Hype-Wipe	Current Technologies Inc	Feline calicivirus; norovirus	1	Towelette	No	03/26/2020
10324-59	Quaternary ammonium	Maquat 64	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/19/2020
777-128	Quaternary ammonium	Lysol® Laundry Sanitizer	Reckitt Benckiser	Human coronavirus	5	Dilutable (laundry pre-soak only)	No	03/19/2020
10324-230	Hydrogen peroxide; Peroxyacetic acid	Maguard 1522	Mason Chemical Company	Human coronavirus	1	Dilutable	No	03/13/2020
70627-62	Hydrogen peroxide	Phato 1:64 Disinfectant Cleaner	Diversey Inc	Human coronavirus	5	Dilutable	No	03/13/2020
74559-6	Hydrogen peroxide	Oxy-res (Concentrate)	Virox Technologies Inc	Human coronavirus	5	Dilutable	No	03/13/2020
10324-214	Hydrogen peroxide; Peroxyacetic acid	Maguard 5626	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
8383-12	Hydrogen peroxide; Peroxyacetic acid	Peridox	Contec Inc	Human coronavirus	2	Dilutable	No	03/13/2020
1677-204	Octanoic acid	65 Disinfecting Heavy Duty Acid Bathroom Cleaner	Ecolab Inc	Human coronavirus	2	Dilutable	No	03/13/2020
54289-4	Peroxyacetic acid	Peraclean 15	Evonik	Human coronavirus	1	Dilutable	No	03/13/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
		(Peroxyacetic Acid Solution)	Corporation					
34810-31	Phenolic	Wex-cide 128	Wexford Labs Inc	Human coronavirus	10	Dilutable	No	03/13/2020
70627-6	Phenolic	Phenolic Disinfectant HG	Diversey Inc	Human coronavirus	10	Dilutable	No	03/13/2020
10324-63	Quaternary ammonium	Maquat 10	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-71	Quaternary ammonium	Maquat 280	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-72	Quaternary ammonium	Maquat 615-HD	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-80	Quaternary ammonium	Maquat 5.5-M	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-81	Quaternary ammonium	Maquat 7.5-M	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-85	Quaternary ammonium	Maquat 86-M	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-93	Quaternary ammonium	Maquat 64-PD	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-94	Quaternary ammonium	Maquat 20-M	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-96	Quaternary ammonium	Maquat 50-DS	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-99	Quaternary ammonium	Maquat 10-PD	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-105	Quaternary ammonium	Maquat 128 PD	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-108	Quaternary ammonium	Maquat 256-MN	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-112	Quaternary ammonium	Maquat 128-MN	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-113	Quaternary ammonium	Maquat 64-MN	Mason Chemical	Human coronavirus	10	Dilutable	No	03/13/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
			Company					
10324-114	Quaternary ammonium	Maquat 32-MN	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-115	Quaternary ammonium	Maquat 750-M	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-117	Quaternary ammonium	Maquat 710-M	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-140	Quaternary ammonium	Maquat MQ2525M-CPV	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-141	Quaternary ammonium	Maquat 256-NHQ	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-142	Quaternary ammonium	Maquat MQ2525M-14	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-154	Quaternary ammonium	Maquat 64-NHQ	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-155	Quaternary ammonium	Maquat 128-NHQ	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-156	Quaternary ammonium	Maquat 512-NHQ	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-157	Quaternary ammonium	Maquat 32-NHQ	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-164	Quaternary ammonium	Maquat 256 PD	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-166	Quaternary ammonium	Maquat 32	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-167	Quaternary ammonium	Maquat 32 PD	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-177	Quaternary ammonium	Maquat 705-M	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-194	Quaternary ammonium	Maquat 2420-10	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-198	Quaternary ammonium	Maquat 702.5-M	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020

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61178-1	Quaternary ammonium	D-125	Microgen Inc	Human coronavirus	10	Dilutable	No	03/13/2020
61178-5	Quaternary ammonium	CCX-151	Microgen Inc	Human coronavirus	10	Dilutable	No	03/13/2020
62472-2	Quaternary ammonium	Kennelsol HC	Alpha Tech Pet Inc.	Human coronavirus	10	Dilutable	No	03/13/2020
67619-10	Quaternary ammonium	CPPC Everest	Clorox Professional Products Company	Human coronavirus	10	Dilutable	No	03/13/2020
70385-6	Quaternary ammonium	QGC	Prorestore Products	Human coronavirus	10	Dilutable	No	03/13/2020
70627-15	Quaternary ammonium	Warrior	Diversey Inc	Human coronavirus	10	Dilutable	No	03/13/2020
70627-23	Quaternary ammonium	Virex II/ 64	Diversey Inc	Human coronavirus	10	Dilutable	No	03/13/2020
70627-35	Quaternary ammonium	Envy Foaming Disinfectant Cleaner	Diversey Inc	Human coronavirus	3	Dilutable	No	03/13/2020
70627-63	Quaternary ammonium	512 Sanitizer	Diversey Inc	Human coronavirus	10	Dilutable	No	03/13/2020
85343-1	Quaternary ammonium	Teccare Control	Talley Environmental Care Limited	Human coronavirus	10	Dilutable	No	03/13/2020
90287-1	Quaternary ammonium	Maquat 25.6-PDX	VI-JON INC	Human coronavirus	10	Dilutable	No	03/13/2020
1839-169	Quaternary ammonium	BTC 885 Neutral Disinfectant Cleaner-64	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
777-82	Quaternary ammonium	Lysol Brand Deodorizing Disinfectant Cleaner	Reckitt Benckiser	Human coronavirus	10	Dilutable	No	03/13/2020
1677-256	Quaternary ammonium	FSC 35K	Ecolab Inc	Human coronavirus	5	Dilutable	No	03/13/2020
1839-78	Quaternary ammonium	NP 3.2 Detergent/ disinfectant	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-79	Quaternary ammonium	NP 4.5 Detergent/ disinfectant	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-81	Quaternary ammonium	NP 9.0 Detergent/	Stepan	Human coronavirus	10	Dilutable	No	03/13/2020

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		disinfectant	Company					
1839-86	Quaternary ammonium	BTC 2125 M 10% Solution	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-94	Quaternary ammonium	NP 3.2 (D & F) Detergent/ disinfectant	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-96	Quaternary ammonium	NP 9.0 (D & F) Detergent/ disinfectant	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-155	Quaternary ammonium	BTC 2125M 20% Solution	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-166	Quaternary ammonium	BTC 885 NDC-128	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-167	Quaternary ammonium	BTC 885 Neutral Disinfectant Cleaner-256	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-168	Quaternary ammonium	BTC 885 NDC-32	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-176	Quaternary ammonium	Liquid-pak Neutral Disinfectant Cleaner	Stepan Company	Human coronavirus	10	Dilutable	No	03/13/2020
1839-211	Quaternary ammonium	SC-AHD-64	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-212	Quaternary ammonium	SC-AHD-256	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-213	Quaternary ammonium	SC-AHD-128	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-214	Quaternary ammonium	SC-NDC-256	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-215	Quaternary ammonium	SC-NDC-128	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-233	Quaternary ammonium	SC-5:64N	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
1839-235	Quaternary ammonium	SC-5:256N	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-236	Quaternary ammonium	SC-5:128N	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-244	Quaternary ammonium	SC -5:64HN	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-245	Quaternary ammonium	SC-5:256HN	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
1839-246	Quaternary ammonium	SC-5:128HN	Stepan Company	Human coronavirus	5	Dilutable	No	03/13/2020
3862-191	Quaternary ammonium	Assure	ABC Compounding Co Inc	Human coronavirus	10	Dilutable	No	03/13/2020
6198-4	Quaternary ammonium	Q. A. Concentrated Solution	National Chemicals Inc	Human coronavirus	10	Dilutable	No	03/13/2020
6836-233	Quaternary ammonium	BARDAC 205M-50	Lonza LLC	Human coronavirus	1	Dilutable	No	03/13/2020
6836-381	Quaternary ammonium	Lonzagard R-82G	Lonza LLC	Human coronavirus	1	Dilutable	No	03/13/2020
10324-57	Quaternary ammonium	Maquat 42	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
10324-58	Quaternary ammonium	Maquat 128	Mason Chemical Company	Human coronavirus	10	Dilutable	No	03/13/2020
88494-1	Quaternary ammonium; Ethanol	Wedge Disinfectant	North American Infection Control LTD	Human coronavirus	1	Dilutable	No	03/13/2020
74986-4	Sodium chlorite	Selectocide 2L500	Selective Micro Technologies LLC	Human coronavirus	10	Dilutable	No	03/13/2020
87508-3	Sodium chlorite	Performacide	Odorstart LLC	Human coronavirus	10	Dilutable	No	03/13/2020
67619-8	Sodium hypochlorite	CPPC Ultra Bleach 2	Clorox Professional Products Company	Human coronavirus	5	Dilutable	No	03/13/2020
67619-28	Sodium hypochlorite	Milo	Clorox	Human coronavirus	5	Dilutable	No	03/13/2020

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			Professional Products Company					
1672-65	Sodium hypochlorite	Austin A-1 Ultra Disinfecting Bleach	James Austin Company	Human coronavirus	10	Dilutable	No	03/13/2020
1672-67	Sodium hypochlorite	Austin's A-1 Concentrated Bleach 8.25%	James Austin Company	Human coronavirus	5	Dilutable	No	03/13/2020
5813-50	Sodium hypochlorite	Ultra Clorox Brand Regular Bleach	The Clorox Company	Human coronavirus	5	Dilutable	No	03/13/2020
5813-103	Sodium hypochlorite	Cgb3	The Clorox Company	Human coronavirus	5	Dilutable	No	03/13/2020
5813-104	Sodium hypochlorite	Cgb4	The Clorox Company	Human coronavirus	5	Dilutable	No	03/13/2020
5813-86	Glycolic acid	CBW	The Clorox Company	Human coronavirus	10	Impregnated materials	No	03/13/2020
5813-93	Glycolic acid	Show	The Clorox Company	Human coronavirus	10	Impregnated materials	No	03/13/2020
9402-15	Hydrogen peroxide; Ammonium carbonate; Ammonium bicarbonate	Victor Spray	Kimberly-Clark Global Sales LLC	Human coronavirus	5	Pressurized liquid	No	03/13/2020
4822-548	Triethylene glycol; Quaternary ammonium	Combo	S.C. Johnson & Son Inc	Human coronavirus	5	Pressurized liquid	No	03/13/2020
777-136	Ethanol	Lysol Neutra Air® 2 in 1	Reckitt Benckiser	Human coronavirus	0.5	RTU	No	03/13/2020
70627-78	Hydrogen peroxide	Suretouch	Diversey Inc	Human coronavirus	5	RTU	No	03/13/2020
74559-8	Hydrogen peroxide	Accel 5 RTU	Virox Technologies Inc	Human coronavirus	5	RTU	No	03/13/2020
89900-1	Hydrogen peroxide	Nathan 2	S.C. Johnson Professional	Human coronavirus	5	RTU	No	03/13/2020
9402-14	Hydrogen peroxide; Ammonium carbonate; Ammonium bicarbonate	Hitman Spray	Kimberly-Clark Global Sales LLC	Human coronavirus	5	RTU	No	03/13/2020

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8383-13	Hydrogen peroxide; Peroxyacetic Acid	Peridox RTU [™]	Contec Inc	Human coronavirus	2	RTU	No	03/13/2020
89896-2	Hypochlorous acid	Cleansmart	Simple Science Limited	Human coronavirus	10	RTU	No	03/13/2020
4822-606	L-Lactic Acid	Fangio	S.C. Johnson & Son Inc	Human coronavirus	10	RTU	No	03/13/2020
4822-608	L-Lactic acid	Gurney	S.C. Johnson & Son Inc	Human coronavirus	5	RTU	No	03/13/2020
8383-3	Phenolic	Sporicidin (Brand) Disinfectant Solution (Spray)	Contec Inc	Human coronavirus	5	RTU	No	03/13/2020
11346-4	Quaternary ammonium	Clorox QS	The Clorox Company	Human coronavirus	2	RTU	No	03/13/2020
70627-2	Quaternary ammonium	Disinfectant D.C. 100	Diversey Inc	Human coronavirus	2	RTU	No	03/13/2020
777-66	Quaternary ammonium	Lysol® Brand All Purpose Cleaner	Reckitt Benckiser	Human coronavirus	2	RTU	No	03/13/2020
777-91	Quaternary ammonium	Lysol® Kitchen Pro Antibacterial Cleaner	Reckitt Benckiser	Human coronavirus	2	RTU	No	03/13/2020
1839-225	Quaternary ammonium	SC-RTU-TB	Stepan Company	Human coronavirus	5	RTU	No	03/13/2020
4822-607	Quaternary ammonium	Lauda	S.C. Johnson & Son Inc	Human coronavirus	5	RTU	No	03/13/2020
4822-609	Quaternary ammonium	Stewart	S.C. Johnson & Son Inc	Human coronavirus	3	RTU	No	03/13/2020
4822-613	Quaternary ammonium	Gertrude	S.C. Johnson & Son Inc	Human coronavirus	5	RTU	No	03/13/2020
5813-73	Quaternary ammonium	Clorox Everest	The Clorox Company	Human coronavirus	0.5	RTU	No	03/13/2020
42964-17	Quaternary ammonium; Ethanol	Asepticare	Airkem professional products	Human coronavirus	2	RTU	No	03/13/2020

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70144-5	Quaternary ammonium; Ethanol	Opti-cide Max	Micro-Scientific LLC	Human coronavirus	2	RTU	No	03/13/2020
10492-5	Quaternary ammonium; Isopropanol	Discide Ultra Disinfecting Spray	Palermo Healthcare LLC	Human coronavirus	0.5	RTU	No	03/13/2020
46781-6	Quaternary ammonium; Isopropanol	Cavicide	Metrex Research	Human coronavirus	2	RTU	No	03/13/2020
72977-3	Silver ion; Citric acid	Axen(R) 30	ETI H2O Inc	Human coronavirus	3	RTU	No	03/13/2020
72977-5	Silver ion; Citric acid	Sdc3a	ETI H2O Inc	Human coronavirus	1	RTU	No	03/13/2020
56392-10	Sodium hypochlorite	Caltech Swat 200 9B	Clorox Professional Products Company	Human coronavirus	2	RTU	No	03/13/2020
67619-11	Sodium hypochlorite	CPPC Shower	Clorox Professional Products Company	Human coronavirus	1	RTU	No	03/13/2020
67619-13	Sodium hypochlorite	CPPC Storm	Clorox Professional Products Company	Human coronavirus	1	RTU	No	03/13/2020
67619-27	Sodium hypochlorite	Buster	Clorox Professional Products Company	Human coronavirus	5	RTU	No	03/13/2020
70590-2	Sodium hypochlorite	Bleach-rite Disinfecting Spray With Bleach	Current Technologies Inc	Human coronavirus	1	RTU	No	03/13/2020
1677-241	Sodium hypochlorite	Hydris	Ecolab Inc	Human coronavirus	5	RTU	No	03/13/2020
5813-98	Sodium hypochlorite	Lite	The Clorox Company	Human coronavirus	1	RTU	No	03/13/2020
5813-106	Sodium hypochlorite	Axl	The Clorox Company	Human coronavirus	1	RTU	No	03/13/2020
4091-23	Sodium hypochlorite; Sodium carbonate	Mold Armor Formula 400	W.M. Barr & Company Inc	Human coronavirus	0.5	RTU	No	03/13/2020

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	Emerging Viral Pathogen Claim?	Date Added to List N
74986-5	Sodium chlorite	Selectocide 5g	Selective Micro Technologies LLC	Human coronavirus	10	Solid	No	03/13/2020
9402-17	Hydrogen peroxide; Ammonium carbonate; Ammonium bicarbonate	Hitman Wipe	Kimberly-Clark Global Sales LLC	Human coronavirus	6	Wipe	No	03/13/2020
8383-14	Hydrogen peroxide; Peroxyacetic acid	Peridoxrtu (Brand) One-step Germicidal Wipes	Contec Inc	Human coronavirus	0.5	Wipe	No	03/13/2020
8383-7	Phenolic	Sporicidin (Brand) Disinfectant Towelettes	Contec Inc	Human coronavirus	5	Wipe	No	03/13/2020
777-130	Quaternary ammonium	Caterpillar	Reckitt Benckiser	Human coronavirus	2.5	Wipe	No	03/13/2020
1839-190	Quaternary ammonium	Stepan Disinfectant Wipe	Stepan Company	Human coronavirus	10	Wipe	No	03/13/2020
6836-336	Quaternary ammonium	Lonza Disinfectant Wipes Plus	Lonza LLC	Human coronavirus	4	Wipe	No	03/13/2020
6836-372	Quaternary ammonium	Nugen 2m Disinfectant Wipes	Lonza LLC	Human coronavirus	2	Wipe	No	03/13/2020
6836-382	Quaternary ammonium	Nugen Low Streak Disinfectant Wipes	Lonza LLC	Human coronavirus	4	Wipe	No	03/13/2020
9480-5	Quaternary ammonium	Sani-cloth Germicidal Disposable Cloth	Professional Disposables International Inc	Human coronavirus	3	Wipe	No	03/13/2020
10492-4	Quaternary ammonium; Isopropanol	Discide Ultra Disinfecting Towelettes	Palermo Healthcare LLC	Human coronavirus	0.5	Wipe	No	03/13/2020
5813-99	Sodium hypochlorite	Wave	The Clorox Company	Human coronavirus	1	Wipe	No	03/13/2020
70627-75	Sodium hypochlorite	Avert Sporicidal Disinfectant Cleaner Wipes	Diversey Inc	Human coronavirus	1	Wipe	No	03/13/2020

Table 2. Community mitigation strategies by setting and by level of community transmission or impact of COVID-19

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial
Individuals and Families at Home “What you can do to prepare, if you or a family member gets ill, or if your community experiences spread of COVID-19”	<ul style="list-style-type: none"> • Know where to find local information on COVID-19 and local trends of COVID-19 cases. • Know the signs and symptoms of COVID-19 and what to do if symptomatic: <ul style="list-style-type: none"> » Stay home when you are sick » Call your health care provider’s office in advance of a visit » Limit movement in the community » Limit visitors • Know what additional measures those at high-risk and who are vulnerable should take. • Implement personal protective measures (e.g., stay home when sick, handwashing, respiratory etiquette, clean frequently touched surfaces daily). • Create a household plan of action in case of illness in the household or disruption of daily activities due to COVID-19 in the community. <ul style="list-style-type: none"> » Consider 2-week supply of prescription and over the counter medications, food and other essentials. Know how to get food delivered if possible. » Establish ways to communicate with others (e.g., family, friends, co-workers). » Establish plans to telework, what to do about childcare needs, how to adapt to cancellation of events. • Know about emergency operations plans for schools/workplaces of household members. 	<ul style="list-style-type: none"> • Continue to monitor local information about COVID-19 in your community. • Continue to practice personal protective measures. • Continue to put household plan into action. • Individuals at increased risk of severe illness should consider staying at home and avoiding gatherings or other situations of potential exposures, including travel. 	<ul style="list-style-type: none"> • Continue to monitor local information. • Continue to practice personal protective measures. • Continue to put household plan into place. • All individuals should limit community movement and adapt to disruptions in routine activities (e.g., school and/or work closures) according to guidance from local officials.

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial
Schools/childcare "What childcare facilities, K-12 schools, and colleges and universities can do to prepare for COVID-19, if the school or facility has cases of COVID-19, or if the community is experiencing spread of COVID-19)"	<ul style="list-style-type: none"> • Know where to find local information on COVID-19 and local trends of COVID-19 cases. • Know the signs and symptoms of COVID-19 and what to do if students or staff become symptomatic at school/childcare site. • Review and update emergency operations plan (including implementation of social distancing measures, distance learning if feasible) or develop plan if one is not available. • Evaluate whether there are students or staff who are at increased risk of severe illness and develop plans for them to continue to work or receive educational services if there is moderate levels of COVID-19 transmission or impact. <ul style="list-style-type: none"> » Parents of children at increased risk for severe illness should discuss with their health care provider whether those students should stay home in case of school or community spread. » Staff at increased risk for severe illness should have a plan to stay home if there are school-based cases or community spread. • Encourage staff and students to stay home when sick and notify school administrators of illness (schools should provide non-punitive sick leave options to allow staff to stay home when ill). • Encourage personal protective measures among staff/students (e.g., stay home when sick, handwashing, respiratory etiquette). • Clean and disinfect frequently touched surfaces daily. • Ensure hand hygiene supplies are readily available in buildings. 	<ul style="list-style-type: none"> • Implement social distancing measures: <ul style="list-style-type: none"> » Reduce the frequency of large gatherings (e.g., assemblies), and limit the number of attendees per gathering. » Alter schedules to reduce mixing (e.g., stagger recess, entry/dismissal times) » Limit inter-school interactions » Consider distance or e-learning in some settings • Consider regular health checks (e.g., temperature and respiratory symptom screening) of students, staff, and visitors (if feasible). • Short-term dismissals for school and extracurricular activities as needed (e.g., if cases in staff/students) for cleaning and contact tracing. • Students at increased risk of severe illness should consider implementing individual plans for distance learning, e-learning. 	<ul style="list-style-type: none"> • Broader and/or longer-term school dismissals, either as a preventive measure or because of staff and/or student absenteeism. • Cancellation of school-associated congregations, particularly those with participation of high-risk individuals. • Implement distance learning if feasible.

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial
Assisted living facilities, senior living facilities and adult day programs “What facilities can do to prepare for COVID-19, if the facility has cases of COVID-19, or if the community is experiencing spread of COVID-19”	<ul style="list-style-type: none"> • Know where to find local information on COVID-19. • Know the signs and symptoms of COVID-19 and what to do if clients/residents or staff become symptomatic. • Review and update emergency operations plan (including implementation of social distancing measures) or develop a plan if one is not available. • Encourage personal protective measures among staff, residents and clients who live elsewhere (e.g., stay home or in residences when sick, handwashing, respiratory etiquette). • Clean frequently touched surfaces daily. • Ensure hand hygiene supplies are readily available in all buildings. 	<ul style="list-style-type: none"> • Implement social distancing measures: <ul style="list-style-type: none"> » Reduce large gatherings (e.g., group socialevents) » Alter schedules to reduce mixing (e.g., stagger meal, activity, arrival/departure times) » Limit programs with external staff » Consider having residents stay in facility and limit exposure to the general community » Limit visitors, implement screening • Temperature and respiratory symptom screening of attendees, staff, and visitors. • Short-term closures as needed (e.g., if cases in staff, residents or clients who live elsewhere) for cleaning and contact tracing. 	<ul style="list-style-type: none"> • Longer-term closure or quarantine of facility. • Restrict or limit visitor access (e.g., maximum of 1 per day).

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial
Workplace "What workplaces can do to prepare for COVID-19, if the workplace has cases of COVID-19, or if the community is experiencing spread of COVID-19)"	<ul style="list-style-type: none"> • Know where to find local information on COVID-19 and local trends of COVID-19 cases. • Know the signs and symptoms of COVID-19 and what to do if staff become symptomatic at the worksite. • Review, update, or develop workplace plans to include: <ul style="list-style-type: none"> » Liberal leave and telework policies » Consider 7-day leave policies for people with COVID-19 symptoms » Consider alternate team approaches for work schedules. • Encourage employees to stay home and notify workplace administrators when sick (workplaces should provide non-punitive sick leave options to allow staff to stay home when ill). • Encourage personal protective measures among staff (e.g., stay home when sick, handwashing, respiratory etiquette). • Clean and disinfect frequently touched surfaces daily. • Ensure hand hygiene supplies are readily available in building. 	<ul style="list-style-type: none"> • Encourage staff to telework (when feasible), particularly individuals at increased risk of severe illness. • Implement social distancing measures: <ul style="list-style-type: none"> » Increasing physical space between workers at the worksite » Staggering work schedules » Decreasing social contacts in the workplace (e.g., limit in-person meetings, meeting for lunch in a break room, etc.) • Limit large work-related gatherings (e.g., staff meetings, after-work functions). • Limit non-essential work travel. • Consider regular health checks (e.g., temperature and respiratory symptom screening) of staff and visitors entering buildings (if feasible). 	<ul style="list-style-type: none"> • Implement extended telework arrangements (when feasible). • Ensure flexible leave policies for staff who need to stay home due to school/childcare dismissals. • Cancel non-essential work travel. • Cancel work-sponsored conferences, tradeshow, etc.

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial
Community and faith-based organizations “What organizations can do to prepare for COVID-19, if the organizations has cases of COVID-19, or if the community is experiencing spread of COVID-19)”	<ul style="list-style-type: none"> • Know where to find local information on COVID-19 and local trends of COVID-19 cases. • Know the signs and symptoms of COVID-19 and what to do if organization members/staff become symptomatic. • Identify safe ways to serve those that are at high risk or vulnerable (outreach, assistance, etc.). • Review, update, or develop emergency plans for the organization, especially consideration for individuals at increased risk of severe illness. • Encourage staff and members to stay home and notify organization administrators of illness when sick. • Encourage personal protective measures among organization/members and staff (e.g., stay home when sick, handwashing, respiratory etiquette). • Clean frequently touched surfaces at organization gathering points daily. • Ensure hand hygiene supplies are readily available in building. 	<ul style="list-style-type: none"> • Implement social distancing measures: <ul style="list-style-type: none"> » Reduce activities (e.g., group congregation, religious services), especially for organizations with individuals at increased risk of severe illness. » Consider offering video/audio of events. • Determine ways to continue providing support services to individuals at increased risk of severe disease (services, meals, checking in) while limiting group settings and exposures. • Cancel large gatherings (e.g., >250 people, though threshold is at the discretion of the community) or move to smaller groupings. • For organizations that serve high-risk populations, cancel gatherings of more than 10 people. 	<ul style="list-style-type: none"> • Cancel community and faith-based gatherings of any size.

Factor	Potential mitigation activities according to level of community transmission or impact of COVID-19 by setting		
	None to Minimal	Minimal to moderate	Substantial
Healthcare settings and healthcare provider (includes outpatient, nursing homes/long-term care facilities, inpatient, telehealth) “What healthcare settings including nursing homes/long-term care facilities, can do to prepare for COVID-19, if the facilities has cases of COVID-19, or if the community is experiencing spread of COVID-19)”	<ul style="list-style-type: none"> • Provide healthcare personnel ([HCP], including staff at nursing homes and long-term care facilities) and systems with tools and guidance needed to support their decisions to care for patients at home (or in nursing homes/long-term care facilities). • Develop systems for phone triage and telemedicine to reduce unnecessary healthcare visits. • Assess facility infection control programs; assess personal protective equipment (PPE) supplies and optimize PPE use. • Assess plans for monitoring of HCP and plans for increasing numbers of HCP if needed. • Assess visitor policies. • Assess HCP sick leave policies (healthcare facilities should provide non-punitive sick leave options to allow HCP to stay home when ill). • Encourage HCP to stay home and notify healthcare facility administrators when sick. • In conjunction with local health department, identify exposed HCP, and implement recommended monitoring and work restrictions. • Implement triage prior to entering facilities to rapidly identify and isolate patients with respiratory illness (e.g., phone triage before patient arrival, triage upon arrival). 	<ul style="list-style-type: none"> • Implement changes to visitor policies to further limit exposures to HCP, residents, and patients. Changes could include temperature/symptom checks for visitors, limiting visitor movement in the facility, etc. • Implement triage before entering facilities (e.g., parking lot triage, front door), phone triage, and telemedicine to limit unnecessary healthcare visits. • Actively monitor absenteeism and respiratory illness among HCP and patients. • Actively monitor PPE supplies. • Establish processes to evaluate and test large numbers of patients and HCP with respiratory symptoms (e.g., designated clinic, surge tent). • Consider allowing asymptomatic exposed HCP to work while wearing a facemask. • Begin to cross train HCP for working in other units in anticipation of staffing shortages. 	<ul style="list-style-type: none"> • Restrict or limit visitors (e.g., maximum of 1 per day) to reduce facility-based transmission. • Identify areas of operations that may be subject to alternative standards of care and implement necessary changes (e.g., allowing mildly symptomatic HCP to work while wearing a facemask). • Cancel elective and non-urgent procedures • Establish cohort units or facilities for large numbers of patients. • Consider requiring all HCP to wear a facemask when in the facility depending on supply.

Table 3. Potential mitigation strategies for public health functions

Public health control activities by level of COVID-19 community transmission		
None to Minimal	Minimal to Moderate	Substantial
Evidence of isolated cases or limited community transmission, case investigations underway, no evidence of exposure in large communal setting, e.g., healthcare facility, school, mass gathering.	Widespread and/or sustained transmission with high likelihood or confirmed exposure within communal settings with potential for rapid increase in suspected cases.	Large scale community transmission, healthcare staffing significantly impacted, multiple cases within communal settings like healthcare facilities, schools, mass gatherings etc.
<ul style="list-style-type: none"> • Continue contact tracing, monitor and observe contacts as advised in guidance to maximize containment around cases. • Isolation of confirmed COVID-19 cases until no longer considered infectious according to guidance. • For asymptomatic close contacts exposed to a confirmed COVID-19 case, consideration of movement restrictions based on risk level, social distancing. • Monitoring close contacts should be done by jurisdictions to the extent feasible based on local priorities and resources. • Encourage HCP to develop phone triage and telemedicine practices. • Test individuals with signs and symptoms compatible with COVID-19. • Determine methods to streamline contact tracing through simplified data collection and surge if needed (resources including staffing through colleges and other first responders, technology etc.). 	<ul style="list-style-type: none"> • May reduce contact tracing if resources dictate, prioritizing to those in high-risk settings (e.g., healthcare professionals or high-risk settings based on vulnerable populations or critical infrastructure). • Encourage HCP to more strictly implement phone triage and telemedicine practices. • Continue COVID-19 testing of symptomatic persons; however, if testing capacity limited, prioritize testing of high-risk individuals. 	<ul style="list-style-type: none"> • May reduce contact tracing if resources dictate, prioritizing to those in high-risk settings (e.g., healthcare professionals or high-risk settings based on vulnerable populations or critical infrastructure). • Encourage HCP to more strictly implement phone triage and telemedicine practices. • Continue COVID-19 testing of symptomatic persons; however, if testing capacity limited, prioritize testing of high-risk individuals.

Appendix A: Underlying medical conditions that may increase the risk of severe illness from COVID-19 for individuals of any age.

- People 65 years and older
- People who live in a nursing home or long-term care facility
- People of all ages with underlying medical conditions, particularly if not well controlled, including:
 - People with chronic lung disease or moderate to severe asthma
 - People who have serious heart conditions
 - People who are immunocompromised
 - Many conditions can cause a person to be immunocompromised, including cancer treatment, smoking, bone marrow or organ transplantation, immune deficiencies, poorly controlled HIV or AIDS, and prolonged use of corticosteroids and other immune weakening medications
 - People with severe obesity (body mass index [BMI] of 40 or higher)
 - People with diabetes
 - People with chronic kidney disease undergoing dialysis
 - People with liver disease