

Public Awareness
Campaign
to Combat
Coronavirus
(COVID-19)



# **Guidelines on SARS-CoV-2 (COVID-19) Disinfection of Public Places**

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### **Environmental Cleaning and Disinfection of Public Places**





There are specific environmental disinfection protocols for public places and high-volume retail locations, particularly environmental surface cleaning of routinely touched surfaces and objects (e.g., door knobs, desks, keyboards, tables, etc.) to reduce the risk of virus transmission. Contact transmission (i.e., hand transfer of virus from contaminated objects to the eyes, nose, or mouth) is a recognized route of virus spread.

## **Public Places and High-Volume Retail Locations**

- Schools
- Malls
- Cinemas
- Restaurants
- Public toilets
- Showrooms
- Game rooms, and similar recreational facilities
- Children's clubs, nurseries and similar facilities
- Gymnasiums
- Public Swimming pools

## Frequently Touched Public Surfaces

- Door handles
- Hand rails
- Elevator buttons
- Telephones
- Keyboards
- Tabletops

- Chair arms
- Toilet flush handles
- Faucet handles
- Equipment handles
- Sports equipment and other similar equipment

#### **Environmental Hygiene Education for the Public**

Ensure that educational signs are posted in public places for the community to follow effective hygiene practices. This information should include the following:

- Cover your mouth and nose with a tissue when you cough or sneeze, dispose of the used tissue in the garbage, and wash your hands afterwards
- Cover your mouth and nose with the inside of your elbow (not your hands) if you do not have a tissue and need to cough or sneeze
- Use soap and water and wash your hands for at least 20 seconds
- Use alcohol-based (60-95% alcohol) sanitizers and/or wipes

#### **Suitable Environmental Disinfectants**

The preferred means of disinfecting environmental surfaces is washing with detergent and hot water. Ministry of Health-approved disinfectants are also acceptable (refer to the appendix for Registered Environmental Protection Agency (EPA) Products), but generally pose exposure risk and require use of appropriate Personal Protective Equipment (PPE) as described in the appendix.

Due to the potential survival of the virus in the environment for several days, the premises and areas potentially contaminated with SARS-CoV-2 should be cleaned before their re-use, using products containing antimicrobial agents known to be effective against coronaviruses. Although there is a lack of specific evidence for their effectiveness against SARS-CoV-2, cleaning with household detergents and common disinfectant products should be sufficient for general precautionary cleaning. Some of the active ingredients, e.g. sodium hypochlorite (in household bleach) and ethanol are widely available in non-healthcare and non-laboratory settings.

#### **General Environmental Disinfection/Cleaning Consideration**

- Cleaning should be performed using the proper PPE and the correct application and removal of PPE should be followed. Disposable PPE should be treated as potentially infectious material and disposed in accordance with national regulations
- Refrain from relying on dusting or sweeping as this may create aerosols, use damp cleaning methods instead
- Regular household soap or detergent should be used first for cleaning, and then, after rinsing, regular household disinfectant containing 0.5% sodium hypochlorite (i.e., equivalent to 5000 pm or 1 part bleach 5 to 9 parts water) should be applied
- Change mop heads, rags, and similar items and disinfectant solutions frequently during the decontamination procedure
- Consider disposable cleaning items
- Work from areas of light contamination to areas of heavier contamination
- Use a double bucket method (one bucket for cleaning solution, one for rinsing)
- Clean, disinfect, and dry equipment used for cleaning after each use
- Wash hands thoroughly after each work session
- Consult your supervisor with any questions or concerns
- The use of disposable or dedicated cleaning equipment is recommended; non-single use PPE should be decontaminated using the available products (e.g. 0.1% sodium hypochlorite or 70% ethanol)
- When other chemical products are used, the manufacturer's recommendation should be followed and the products prepared and applied according to them
- When using chemical products for cleaning, it is important to keep the facility ventilated (e.g. by opening the windows) to protect the health of cleaning personnel
- All frequently touched areas, such as all accessible surfaces of walls and windows, the toilet bowl and bathroom surfaces, door knobs, elevator buttons, desks should be carefully cleaned
- All textiles (e.g. bed linens, curtains, etc.) should be washed using a hot-water cycle (60-90 °C) and adding laundry detergent

• If a hot-water cycle cannot be used due to the characteristics of the fabric, specific chemicals should be added when washing the textiles (e.g. bleach or laundry products containing sodium hypochlorite, or decontamination products specifically developed for use on textiles).

#### **Specific Disinfection/Cleaning Guidance**

#### **Dishes and Eating Utensils**

Decontaminate non-disposable items by washing in a properly functioning dishwasher at recommended temperatures and quantities of detergent. Disposable items can be discarded as ordinary waste.

#### **Linens and Laundry**

Handle clothing, bedding and towels in a manner that will not generate aerosols, mainly by refraining from shaking. Bag items securely before removing from potentially contaminated areas. In general, wash and dry in the warmest temperatures recommended on the clothing label. Also, some laundry detergents are made to clean best at certain temperatures. It is not necessary to use bleach for each load of laundry as clean laundry produced by washing with detergent alone will be safe for wear and use. Use of bleach as a disinfectant in laundering is optional, and not all fabrics are suitable for bleach. Personnel handling potentially contaminated laundry should wear disposable gloves and wash hands after removing gloves.

#### **Waste Management**

It is recommended to incinerate the infectious waste that may be contaminated with positive/suspected cases of COVID-19. For more details on the guidelines of waste management, refer to the Appendix.

# Appendix

# Personal Protective Equipment (PPE)









The following PPE

# should be worn in the respected order:

- 1. Hand wash
- 2. Gowns (clean, non-sterile, long-sleeved disposable gown).
- 3. Surgical mask (or N95 when airborne precautions are applied)
- 4. Eye protection (goggles or face shield)
- 5. Gloves

## Remove PPEs in the following sequence:

- 1. Remove gloves
- 2. Remove eye protection (goggles)
- 3. Remove gown
- 4. Remove mask
- 5. Wash hands

# **Waste Management**

Waste Category	Examples	Red Bag	Yellow Bag (Incineration)	Yellow Container 2	Black Bag (Sanitary Landfill)	Steam Sterilization
Microbiology	Stocks and cultures of infectious		×			×
Anatomical waste	Tissues, organs, other body parts, specimens of body fluids and their containers (stored in lab for burial)	×				
Blood/blood products/body fluids: All clinical areas: • < 20-ml volumes	Blood containers, IV tubing without needles, suction canisters, pleurovacs, evacuated containers, hemovacs, etc.				×	
• > 20-ml volumes			×			

Waste Category	Examples	Red Bag	Yellow Bag (Incineration)	Yellow Container 2	Black Bag (Sanitary Landfill)	Steam Sterilization
Items contaminate						
with blood:	Paper towel, gauze,					
<ul> <li>If saturated</li> </ul>	disposable, objects, gloves,		×			
and/or	etc.					
dripping						
Not saturated					×	
and/or dried					• •	
Chemotherapeutic	Bulk chemicals and sharps			×		
waste	Trace chemicals		×			
	Contaminated needles,					
Sharps	syringes, scalpel blades,			×		
Silaips	razors, pasteur, pipettes,					
	tubes and broken glass					
Contaminated	Contaminated animal					
animal carcasses,	carcasses, body parts, and		×			×
	bedding of animals that					

Waste Category	Examples	Red Bag	Yellow Bag (Incineration)	Yellow Container 2	Black Bag (Sanitary Landfill)	Steam Sterilization
body parts, and	were intentionally exposed					
bedding	to highly infectious					
	pathogens					
Other hospital	Non-hazardous medical				×	
waste	wastes					

# Registered Environmental Protection Agency (EPA) Products

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

Registration Number	Product Name	Company	Formulation Type
42182-9	FIREBIRD F130	MICROBAN PRODUCTS COMPANY	RTU
47371-129	FORMATION HWS-256	H&S CHEMICALS DIVISION OF LONZA, LLC	DILUTABLE
47371-130	FORMULATION HWS-128	H&S CHEMICALS DIVISION OF LONZA, LLC	DILUTABLE
47371-131	HWS-64	H&S CHEMICALS DIVISION OF LONZA, LLC	DILUTABLE
47371-192	FORMULATION HWS-32	H&S CHEMICALS DIVISION OF LONZA, LLC	DILUTABLE
56392-7	Clorox Healthcare® Bleach Germicidal Cleaner Spray	Clorox Professional Products Company	RTU
5813-105	Clorox Multi Surface Cleaner + Bleach	The Clorox Company	RTU
5813-110	Clorox Pet Solutions Advanced Formula Disinfecting Stain & Odor Remover	The Clorox Company	RTU
5813-111	Clorox Disinfecting Bleach2	The Clorox Company	DILUTABLE
5813-114	Clorox Performance Bleach1	The Clorox Company	DILUTABLE
5813-115	Clorox Germicidal Bleach3	The Clorox Company	RTU
5813-21	Clorox Clean Up Cleaner + Bleach	The Clorox Company	RTU
5813-40	Clorox Disinfecting Bathroom Cleaner	The Clorox Company	RTU

Registration Number	Product Name	Company	Formulation Type
5813-79	Clorox Disinfecting Wipes	The Clorox Company	WIPE
5813-89	Clorox Toilet Bowl Cleaner with Bleach	The Clorox Company	RTU
63761-10	STERILEX ULTRA STEP	STERILEX	DILUTABLE
63761-8	STERLEX ULTRA DISINFECTANT	STERILEX	DILUTABLE
	CLEANER SOLUTION 1		
675-54	LYSOL BRAND HEAVY DUTY CLEANER DISINFECTANT CONCENTRATE	RECKITT BENCKISER	DILUTABLE
67619-12	Clorox Healthcare® Bleach Germicidal Wipes	Clorox Professional Products Company	WIPE
67619-16	Clorox Commercial Solutions® Toilet Bowl Cleaner with Bleach1	Clorox Professional Products Company	RTU
67619-17	Clorox Commercial Solutions® Clorox® Clean-Up Disinfectant Cleaner with Bleach1	Clorox Professional Products Company	RTU
67619-21	Clorox Commercial Solutions® Clorox® Disinfecting Spray	Clorox Professional Products Company	RTU
67619-24	Clorox Commercial Solutions® Hydrogen Peroxide Cleaner Disinfectant	Clorox Professional Products Company	RTU

Registration Number	Product Name	Company	Formulation Type
67619-25	Clorox Commercial Solutions® Hydrogen Peroxide Cleaner Disinfectant Wipes	Clorox Professional Products Company	WIPE
67619-29	Saginaw	Clorox Professional Products Company	RTU
67619-30	GNR	Clorox Professional Products Company	RTU
67619-31	Clorox Commercial Solutions® Clorox® Disinfecting Wipes	Clorox Professional Products Company	WIPE
67619-32	CloroxPro™ Clorox® Germicidal Bleach	Clorox Professional Products Company	DILUTABLE
67619-33	Clorox Commercial Solutions® Clorox® Disinfecting Biostain & Odor Remover	Clorox Professional Products Company	RTU
67619-37	Clorox Healthcare® VersaSure® Wipes	Clorox Professional Products Company	WIPE
67619-38	CloroxPro™ Clorox Total 360® Disinfecting Cleaner1	Clorox Professional Products Company	RTU
6836-140	LONZA FORMULATION- S21F	LONZA, LLC	DILUTABLE
6836-152	LONZA FORMULATION DC- 103	LONZA, LLC	RTU
6836-266	BARDAC 205M-10	LONZA, LLC	DILUTABLE
6836-278	BARDAC 205M-14.08	LONZA, LLC	DILUTABLE
6836-289	BARDAC 205M RTU	LONZA, LLC	RTU

Registration Number	Product Name	Company	Formulation Type
6836-289	BARDAC 205M RTU	LONZA, LLC	RTU
6836-302	BARDAC 205M-2.6	LONZA, LLC	DILUTABLE
6836-305	BARDAC 205M-23	LONZA, LLC	DILUTABLE
6836-313	LONZA DISINFECTANT WIPES	LONZA, LLC	WIPE
6836-340	LONZA DISINFECTANT WIPES PLUS 2	LONZA, LLC	WIPE
6836-349	LONZAGARD RCS-256 PLUS	LONZA, LLC	DILUTABLE
6836-361	NUGEN MB5A-256	LONZA, LLC	DILUTABLE
6836-364	NUGEN MB5N-256	LONZA, LLC	DILUTABLE
6836-365	NUGEN MB5N-128	LONZA, LLC	DILUTABLE
6836-70	BARDAC 205M-7.5	LONZA, LLC	DILUTABLE
6836-75	LONZA FOUMLATION S-21	LONZA, LLC	DILUTABLE
6836-77	LONZA FORMULATION S-18	LONZA, LLC	DILUTABLE
6836-78	LONZA FORMULATION R-82	LONZA, LLC	DILUTABLE
70627-24	VIREX™ II / 256	Diversey, Inc.	DILUTABLE
70627-56	OXIVIR Tb	Diversey, Inc.	RTU
70627-58	OXY-TEAM™ DISINFECTANT CLEAENER	Diversey, Inc.	DILUTABLE
70627-60	OXIVIR™ WIPES	Diversey, Inc.	WIPE
70627-72	Avert Sporicidal Disinfectant Cleaner	Diversey, Inc.	DILUTABLE
70627-74	OXIVIR 1	Diversey, Inc.	RTU

Registration Number	Product Name	Company	Formulation Type
70627-77	Oxivir 1 Wipes	Diversey, Inc.	WIPE
71847-6	KLORSEPT	MEDENTECH LTD	DILUTABLE
71847-7	KLORKLEEN 2	MEDENTECH LTD	DILUTABLE
777-127	LYSOL® DISINEFCTANT MAX COVER MIST	RECKITT BENCKISER	RTU
777-132	LYSOL BRAND POWER PLUS TOILET BOWL CLEANER	RECKITT BENCKISER	RTU
777-70	LYSOL BRAND CLING & FRESH TOILET BOWL CLEANER	RECKITT BENCKISER	RTU
777-81	LYSOL BRAND LIME & RUST TOILET BOWL CLEANER	RECKITT BENCKISER	RTU
777-83	LYSOL BRAND BLEACH MOLD AND MILDEW REMOVER	RECKITT BENCKISER	RTU
777-89	LYSOL BRAND CLEAN & FRESH MULTI-SURFACE CLEANER	RECKITT BENCKISER	DILUTABLE
777-99	PROFESSIONAL LYSOL® DISINFECTANT SPRAY	RECKITT BENCKISER	RTU
84368-1	URTHPRO	URTHTECH, LLC	RTU
85150-1	PURELL Professional Surface Disinfectant Wipes	GOJO Industries, Inc.	WIPE
88494-3	PEAK DISINFECTANT	North American Infection Control, Ltd	RTU
88494-4	PEAK DISINFECTANT WIPES	North American Infection Control, Ltd	WIPE

Registration Number	Product Name	Company	Formulation Type
9480-10	Sani-Prime Germicidal Spray	Professional Disposables International, Inc.	RTU
9480-12	Sani-Cloth Prime Germicidal Disposable Wipe	Professional Disposables International, Inc.	WIPE
9480-14	Sani-HyPerCide Germicidal Spray	Professional Disposables International, Inc.	RTU