NOVEL CORONAVIRUS (COVID-19)

Cleaning and disinfecting guidance for foodservice operations

ECOLAB | MARCH 2020

Last updated 3/16/2020
**GENERAL INFECTION PREVENTION GUIDELINES**

Preventative measures that may help prevent an outbreak of COVID-19 as well as other illnesses.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONITOR NEWS AND ADVICE FROM PUBLIC HEALTH AGENCIES</td>
<td>IMPLEMENT GOOD INFECTION PREVENTION PRACTICES</td>
<td>COMMUNICATE WITH AND MONITOR EMPLOYEES</td>
</tr>
<tr>
<td>Follow local public health recommendations related to local infection activity and need for isolation and closing.</td>
<td>Reinforce personal hygiene throughout your operation. Provide hygiene materials such as tissues, hand soap and sanitizer. Stock effective disinfectant products and follow protocols.</td>
<td>Educate and inform employees. Closely monitor employee health. Have symptomatic employees stay home.</td>
</tr>
</tbody>
</table>
Dated 3/16/20: The novel coronavirus is an emerging pathogen and the situation is constantly evolving. This guidance references CDC and WHO guidelines and is supplemented with Ecolab expertise.

For the most up-to-date information, please refer to Centers for Disease Control and Prevention (CDC), World Health Organization or your local health authority.

Contact your Ecolab representative for additional questions on products or procedures.

Additional information:
- CDC: Interim Guidance for Business and Employers
- CDC: Guidance for Cleaning and Disinfection
- CDC: Prevention in Communities, schools, healthcare settings and businesses
WHAT WE KNOW ABOUT CORONAVIRUS (COVID-19)

- **Coronavirus disease (COVID-19)** is a respiratory disease of international public health concern caused by a “novel coronavirus” not previously seen.

- The virus causes fever and respiratory symptoms.

- To date, the virus has infected more than a hundred thousand people, with thousands of reported deaths.
  - There may be more cases identified—access case counts here: [Global Map of Confirmed Cases](http://wjw.wuhan.gov.cn/front/web/showDetail/2020011509057)

- Public health authorities are actively investigating this outbreak and the situation is evolving.
  - Please follow local public health authority and World Health Organization guidance for the most up-to-date information.

WHAT IS A CORONAVIRUS?

- **Coronaviruses (CoV)** are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV).

- **A novel coronavirus (nCoV)** is a new strain that has not been previously identified in humans.

- **Coronaviruses are transmitted between animals and people.** Several known coronaviruses are circulating in animals that have not yet infected humans.

- **Common signs of infection** include respiratory symptoms, fever, cough, shortness of breath and trouble breathing. In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death.

Source: World Health Organization
HOW DOES CORONAVIRUS SPREAD?

It depends on the particular coronavirus.

Human coronaviruses *may spread by respiratory droplets from an infected person to others through:*

- **The air** by coughing and sneezing
- **Close personal contact**, such as touching or shaking hands
- **Touching** an object or surface with the virus on it, then touching your mouth, nose or eyes before washing your hands

Transmission from person to person is occurring with COVID-19. Surveillance continues.

STEPS TO HELP PROTECT YOURSELF AND YOUR EMPLOYEES AND GUESTS

Public health recommendations focus on **standard infection control practices, training and compliance.**

**Good News**
Coronavirus is a small-enveloped virus. Enveloped viruses are the least resistant to disinfection, which means **disinfectants can be used to effectively kill coronavirus on surfaces.**
HOW TO PROTECT YOURSELF

There are currently no vaccines available to protect you against human coronavirus infection.

You may be able to **reduce your risk** of infection by doing the following:

1. **Wash your hands** often and correctly.
   - The World Health Organization recommends performing hand hygiene with soap and water or alcohol-based hand sanitizer if soap and water are not available.

2. **Avoid touching** your eyes, nose or mouth with unwashed hands.

3. **Avoid close contact** with people who are sick.

4. **Avoid areas where live animals are being sold or raised** in regions where excessive cases are being reported.

5. **Wear a mask if directed by health care or local requirements.**

6. **Seek medical advice immediately** if you have a fever or other symptoms after traveling. Tell the doctor where you have traveled.

Sources:
1. [https://www.cdc.gov/coronavirus/about/prevention.html](https://www.cdc.gov/coronavirus/about/prevention.html)
If you have cold-like symptoms, you can help protect others by doing the following:

- Wear a mask if advised by healthcare experts.
- Stay home while sick.
- Avoid close contact.
- Wash your hands.
- Cover your mouth and nose.
- Contact a doctor immediately.
- Clean and disinfect.
# PROCEDURES BASED ON RISK PROFILE

Ecolab recommends that customers take the following steps based on the risk profile of their operations. This 3-tiered guidance is informed by public health reports and our understanding of the scientific characteristics of underlying causes.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>GREEN: Standard Prevention</th>
<th>YELLOW: Risk Reduction</th>
<th>RED: Remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIPTION</td>
<td><strong>RISK PROFILE:</strong> No known outbreak in your geographic area</td>
<td><strong>RISK PROFILE:</strong> The potential exists for an outbreak in your geographic area</td>
<td><strong>RISK PROFILE:</strong> A publicly declared outbreak in your facility or region is disrupting normal business</td>
</tr>
</tbody>
</table>
| ACTIONS | ▪ Follow current procedures  
▪ Regularly revisit training to ensure compliance  
▪ Maintain standard hygiene and sanitizing/disinfection practices | ▪ Educate employees on infection control, PPE use and communicate Infection Control Procedures  
▪ Assess your preparedness status and collaborate with vendor partners on response readiness  
▪ Evaluate facility usage, lead times and stock shelf life and their impact on ordering supplies  
▪ Increase frequency of standard procedures | ▪ Enhance procedures to respond to an outbreak in your facility, designed to break the chain of infection or illness  
▪ Facilitate training for heightened procedures  
▪ Perform heightened procedures using approved products  
▪ Plan for deep cleaning and reopening procedures after down time or quarantine |

*Increase frequency of cleaning and disinfection of high-touch surfaces*
HAND HYGIENE

Practice and promote **proper hand hygiene**.

1. **WET**
   - hands with clean running water turn off the tap and apply soap.

2. **LATHER**
   - the back of hands, between fingers and under nails.

3. **SCRUB**
   - for at least 20 seconds.

4. **RINSE**
   - hands well under clean running water.

5. **DRY**
   - hands using a clean towel or air dryer.

**IF SOAP AND WATER ARE NOT AVAILABLE,**
use an alcohol-based hand sanitizer.

Last updated 3/16/2020
DISINFECTION: NON-FOOD CONTACT

Clean and disinfect hard surfaces and high-touch objects with approved disinfectants. Increase frequency as needed.

1. **PRE-CLEAN**
   Pre-clean visibly soiled areas to be disinfected

2. **DISINFECT**
   For an emerging viral pathogen, use a disinfectant with an EPA-approved emerging viral pathogen or coronavirus claim. Refer to the product label for complete directions for use.

3. **WAIT**
   Allow surface to remain wet for the time indicated in the directions for use on the product label.

4. **DRY**
   Wipe the surface or allow to air dry.
DISINFECTION: FOOD CONTACT

During RED REMEDIATION: Clean and disinfect hard surfaces and high-touch objects with approved disinfectants. Increase frequency as needed.

1. **PRE-CLEAN**
   Pre-clean visibly soiled areas to be disinfected

2. **DISINFECT**
   For an emerging viral pathogen, use a disinfectant with an EPA-approved emerging viral pathogen or coronavirus claim. Refer to the product label for complete directions for use.

3. **WAIT**
   Allow surface to remain wet for the time indicated in the directions for use on the product label.

4. **DRY**
   Wipe the surface or allow to air dry.

5. **RINSE AND SANITIZE**
   Rinse the surface with potable water and sanitize using food-contact sanitizer according to label directions.

ECOLAB®

Last updated 3/16/2020
HOW TO KNOW IF DISINFECTANTS ARE APPROVED FOR USE AGAINST NOVEL CORONAVIRUS

Find the EPA Registration Number on the product label

To verify your product is on the list of EPA registered antimicrobial products for use against novel coronavirus, match the first two parts of the EPA Registration Number.

Note: Searching by product or company name will not yield full approved list.

Not all products have a three-part EPA Registration Number. Ecolab-owned registrations are only two-parts.
## DISINFECTANTS APPROVED BY EPA FOR USE AGAINST NOVEL CORONAVIRUS

<table>
<thead>
<tr>
<th>Product Name</th>
<th>EPA Reg. No.</th>
<th>SKUs</th>
<th>Follow Directions for Use of Supporting Virus</th>
<th>Dilution</th>
<th>Application</th>
<th>Contact Time</th>
<th>Emerging Viral Pathogen Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 PLUS ANTI-BACTERIAL ALL PURPOSE CLEANER</td>
<td>6836-349-1677</td>
<td>6100912 (2 – 2L) 6100920 (2.5 gal)</td>
<td>Norovirus (Feline calicivirus surrogate)</td>
<td>1 fl. oz./gallon</td>
<td>Spray</td>
<td>5 minutes</td>
<td>Yes</td>
</tr>
<tr>
<td>20 NEUTRAL DISINFECTANT CLEANER</td>
<td>47371-129-1677</td>
<td>6100460 (2 – 2L)</td>
<td>Adenovirus</td>
<td>2 fl. oz./gallon</td>
<td>Immersion or Spray</td>
<td>10 minutes</td>
<td>Yes</td>
</tr>
<tr>
<td>A-456 II DISINFECTANT CLEANER</td>
<td>6836-78-1677</td>
<td>6166931 (2 – 1.3L)</td>
<td>Norovirus (Feline calicivirus surrogate)</td>
<td>0.5-1 fl. oz./gallon</td>
<td>Immersion or Spray</td>
<td>10 minutes</td>
<td>Yes</td>
</tr>
<tr>
<td>HB QUAT</td>
<td>61178-1-42964</td>
<td>6100270 (2.5 gal)</td>
<td>Human Coronavirus</td>
<td>2 fl. oz./gallon</td>
<td>Immersion or Spray</td>
<td>10 minutes</td>
<td>No</td>
</tr>
<tr>
<td>MULTI PURPOSE DISINFECTING WIPES</td>
<td>6836-340-1677</td>
<td>6101858 (6 – 185 count)</td>
<td>Norovirus (Feline calicivirus surrogate)</td>
<td>RTU</td>
<td>Immersion (wipe)</td>
<td>10 minutes</td>
<td>Yes</td>
</tr>
<tr>
<td>NEUTRAL DISINFECTANT CLEANER</td>
<td>47371-129-1677</td>
<td>6114541 (2 – 1.3L) 6101205 (2.5 gal)</td>
<td>Adenovirus</td>
<td>2 fl. oz./gallon</td>
<td>Immersion or Spray</td>
<td>10 minutes</td>
<td>Yes</td>
</tr>
<tr>
<td>OASIS 499 HBV DISINFECTANT CLEANER</td>
<td>6836-78-1677</td>
<td>6100281 (2.5 gal)</td>
<td>Norovirus (Feline calicivirus surrogate)</td>
<td>0.5-1 fl. oz./gallon</td>
<td>Immersion or Spray</td>
<td>10 minutes</td>
<td>Yes</td>
</tr>
<tr>
<td>PEROXIDE MULTI SURFACE CLEANER AND DISINFECTANT</td>
<td>1677-238</td>
<td>6100792 (2 – 1.3L) 6100791 (2 – 2L) 6100693 (2 gal; Oasis) 6100793 (2 gal; Quik Fill)</td>
<td>Norovirus</td>
<td>4 fl. oz./gal OR 6 fl. Oz./gal</td>
<td>Spray</td>
<td>2 minutes OR 45 seconds</td>
<td>Yes</td>
</tr>
<tr>
<td>SCRUB FREE BATHROOM CLEANER AND DISINFECTANT</td>
<td>1677-256</td>
<td>6101799 (2 – 1.3L) 6101798 (2 – 2L) 6101797 (2.5 gal)</td>
<td>Human Coronavirus</td>
<td>4 fl. oz./gal</td>
<td>Spray</td>
<td>5 minutes</td>
<td>No</td>
</tr>
<tr>
<td>TB DISINFECTANT CLEANER RTU</td>
<td>1839-83-1677</td>
<td>6143556 (12 – 32 fl. oz.)</td>
<td>Poliovirus</td>
<td>RTU</td>
<td>Spray</td>
<td>10 minutes</td>
<td>Yes</td>
</tr>
<tr>
<td>VIRASEPT™</td>
<td>1677-226</td>
<td>6002314 (12 – 32 fl. oz.)</td>
<td>Norovirus; Rhinovirus</td>
<td>RTU</td>
<td>Immersion or Spray</td>
<td>4 minutes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
PUBLIC AREA GUIDELINES
Lobbies, entrances, hallways, etc.

STANDARD PROCEDURES
• Pick up debris and remove gum from floor with putty knife or blunt-edged tool.
• Empty and disinfect trash can and replace can liner.
• Clean and disinfect all hard surfaces including high-touch surfaces.
• Clean glass and windows.
• Refill air freshener and hand sanitizer dispensers as needed; disinfect dispensers regularly.
• Vacuum soft-surfaced floors (carpet/rug/walk-off mat); sweep then mop hard-surfaced floors (tile/wood/LVT).

CONSIDERATIONS
• Provide Personal Protective Equipment (e.g., gloves, goggles/eye protection, masks) as directed by local and federal authorities for employees and infected individuals.
• Increase cleaning and disinfection frequency of high touch surfaces in public areas.
• Provide hand sanitizer in high traffic areas.
• Consider limiting non-essential visitors; restrict entry of symptomatic visitors or those who have been exposed.
• Follow all guidance as directed by public health authorities.

REMEDIATION PROCEDURES
• Follow STANDARD PROCEDURES above.
• Consider closing non-essential public gathering areas to limit transmission.
• Consider providing alcohol-based hand sanitizers in public areas especially near touchpoints.

Specific touchpoints
Door handles, push plates, drinking fountains, elevator buttons, gym equipment and machines, thresholds and hand railings, tables and chairs, coffee and beverage stations, vending and ice machines, ordering kiosks, trash can, telephone and keypad.

Refer to product label for complete directions for use
STANDARD PROCEDURES
• Clear surfaces of objects, food debris and other items.
• Wash the surface using a multi-purpose cleaner or manual detergent.
• Rinse with clean potable water using a clean cloth and allow to air dry.
• Sanitize surface with food contact sanitizer according to label directions for use.
• Follow standard operating procedures for washing items in the dishmachine.

REMEDIATION PROCEDURES
• Follow STANDARD PROCEDURES above.
• Follow your standard procedures to sanitize ware through low- and high- temperature dishmachines or a 3-compartment sink.
• Wash and sanitize food contact surfaces and equipment on a more frequent basis.
• Change out utensils in buffet line on a more frequent basis.
• Consider the addition of a disinfection step using an EPA-registered product with an emerging viral pathogen or coronavirus claim. Refer to product label for directions for use. Before putting back in service, continue with STANDARD PROCEDURES (i.e., wash if needed, rinse, sanitize in 3-compartment sink or process in dishmachine).

CONSIDERATIONS
• Provide Personal Protective Equipment (e.g., gloves, gowns) as directed by local and federal authorities for employees and infected individuals.
• Reinforce all personal hygiene requirements, with special attention to hand hygiene. Refer to food code and hand hygiene procedures.
• Perform training to reinforce cleaning, sanitizing, and disinfection procedures.
• Verify dishmachine has product before use.
• Follow all guidance as directed by public health authorities, especially in regards to food handling via take-out or delivery or room-service.

Specific touchpoints
Food Contact: tables, ice machine/bucket and scoop, food prep tools and equipment (e.g., cutting boards, knives, mixing bowls), plates and flatware, glassware, buffet serving trays, handles of all the equipment doors and operation push pads, highchairs, bar top and tools
FOODSERVICE GUIDELINES

Non-Food Contact Surfaces

STANDARD PROCEDURES
- Clean surfaces with a multi-purpose cleaner or manual detergent.
- To disinfect high touch points, pre-clean visibly soiled areas.
- Spray disinfectant on surface making sure to wet thoroughly.
- Allow the surfaces to remain wet for the time indicated in the directions for use on the product label.
- Wipe the surfaces or allow to air dry.

REMEDICATION PROCEDURES
- Follow STANDARD PROCEDURES above.
- Increase frequency of hard surface disinfection using an appropriate EPA-registered product with an emerging viral pathogen or coronavirus claim. Refer to product label for directions for use.

CONSIDERATIONS
- Provide Personal Protective Equipment (e.g., gloves, goggles/eye protection, masks) as directed by local and federal authorities for employees and infected individuals.
- Reinforce all personal hygiene requirements, with special attention to hand hygiene. Refer to food code and hand hygiene procedures.
- Perform training, reinforcing cleaning, sanitizing, and disinfection procedures.
- Increase frequency of cleaning and disinfection of “high-touch” hard surfaces.
- Follow all guidance as directed by public health authorities, especially in regard to food handling via take-out or delivery.

Specific Touchpoints
- Door handles, push plates, cash register, thresholds and hand railings, chairs and booths, non-food contact tables/counters, beverage station, drive-through window/counter, vending machine, public information/ordering kiosk, take-out order shelves, trash can, telephone and keypad, remotes, refrigerator and freezer handles, refrigerator and freezer curtains, 3-compartment sink and mop sink, sink faucets, soap, sanitizer and towel dispenser, non-food contact cleaning tools, mop buckets, computer and keypad, menus and bill folders, pens

Refer to product label for complete directions for use.
RESTROOM GUIDELINES

STANDARD PROCEDURES
- Place wet floor sign at entrance.
- Evaluate restroom and remove debris from floors and counters.
- Spray (and do not wipe) all bathroom hard surfaces with disinfectant cleaner—toilet, urinals, sinks, countertops and fixtures.
- Restock supplies and empty trash.
- Clean mirrors, glass and windows.
- Scrub toilet and urinals.
- Wipe bathroom hard surfaces and high touch points after required disinfectant contact time. Refer to product label.
- Clean and disinfectant floors and apply odor control product (as needed).
- Inspect for quality and remove floor sign when floor is dry.

CONSIDERATIONS
- Provide Personal Protective Equipment (e.g., gloves, goggles/eye protection, masks) as directed by local and federal authorities for employees and infected individuals.
- Provide alcohol-based hand sanitizer outside of public restrooms.
- Ensure hand soap is properly stocked.
- Follow all guidance as directed by public health authorities.

Specific touchpoints
Door handles, bathroom stalls (latch) fixtures, light switches, toilet and urinal handles, towel and soap dispensers, hand dryers, baby changing station, trash can, countertops, feminine hygiene receptacle, toilet paper dispensers.

REMEDIATION PROCEDURES
- Follow STANDARD PROCEDURES above.
- Increase frequency of deep cleaning and high touch point disinfection.
- Increase frequency of hard surface disinfection using an EPA-registered disinfectant with an emerging viral pathogen or coronavirus claim. Carefully read and follow label directions.

Refer to product label for complete directions for use.
EMPLOYEE GUIDELINES

- Reinforce personal hygiene and cough etiquette.
- Closely monitor employee health and have symptomatic employees to stay home per company illness policy.
- Identify critical staff members and functions – develop a business continuity plan. Consider the ability for employees to work from home.
- Provide hygiene materials such as tissues, hand soap and sanitizer.
- Have employees disinfect all personal hard surfaces as referenced on the product label.
- Educate and inform all employees of pandemic status and proper infection control procedures.

Make sure your **team knows:**

- **To stay home if ill** per your company illness policy
- **To contact you if:**
  - They were exposed to someone **confirmed to have COVID-19**
  - They reside in a **restricted area**
- **How to limit exposure** by avoiding large gatherings and close contact with people who are coughing or sneezing.
- **How to keep business operationally ready during shutdown or quarantine:**
  - Make sure regular cleaning and **disinfection** continues to take place.