



IDFA

**International
Dairy Foods Association**

COVID-19: Cleaning and Disinfecting Practices for Dairy Companies





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Dairy Foods Association**

Welcome & Introduction



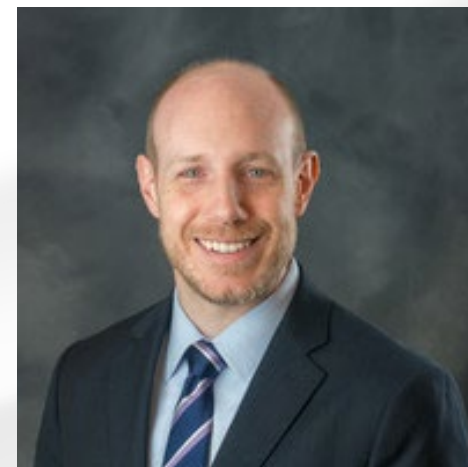
Tom Wojno – SVP, Innovation & Member Advancement



IDFA

**International
Dairy Foods Association**

Regulatory Team Resources



John Allan, VP Regulatory Affairs & International Standards

COVID-19:

Cleaning and Disinfection practices for dairy companies

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RD&E FOOD SAFETY & QUALITY PROGRAM LEADER

NEIL BOGART

EXECUTIVE AREA TECHNICAL SUPPORT COORDINATOR



OUR PRESENTERS TODAY



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NEIL BOGART
EXECUTIVE AREA TECH
SUPPORT COORDINATOR

ABOUT THIS GUIDANCE

Dated 04/22/20: The novel coronavirus is an emerging pathogen and the situation is constantly evolving. This guidance references Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) guidelines and is supplemented with Ecolab expertise. For the most up-to-date information, please refer to [CDC](#), [WHO](#) or your local health authority.

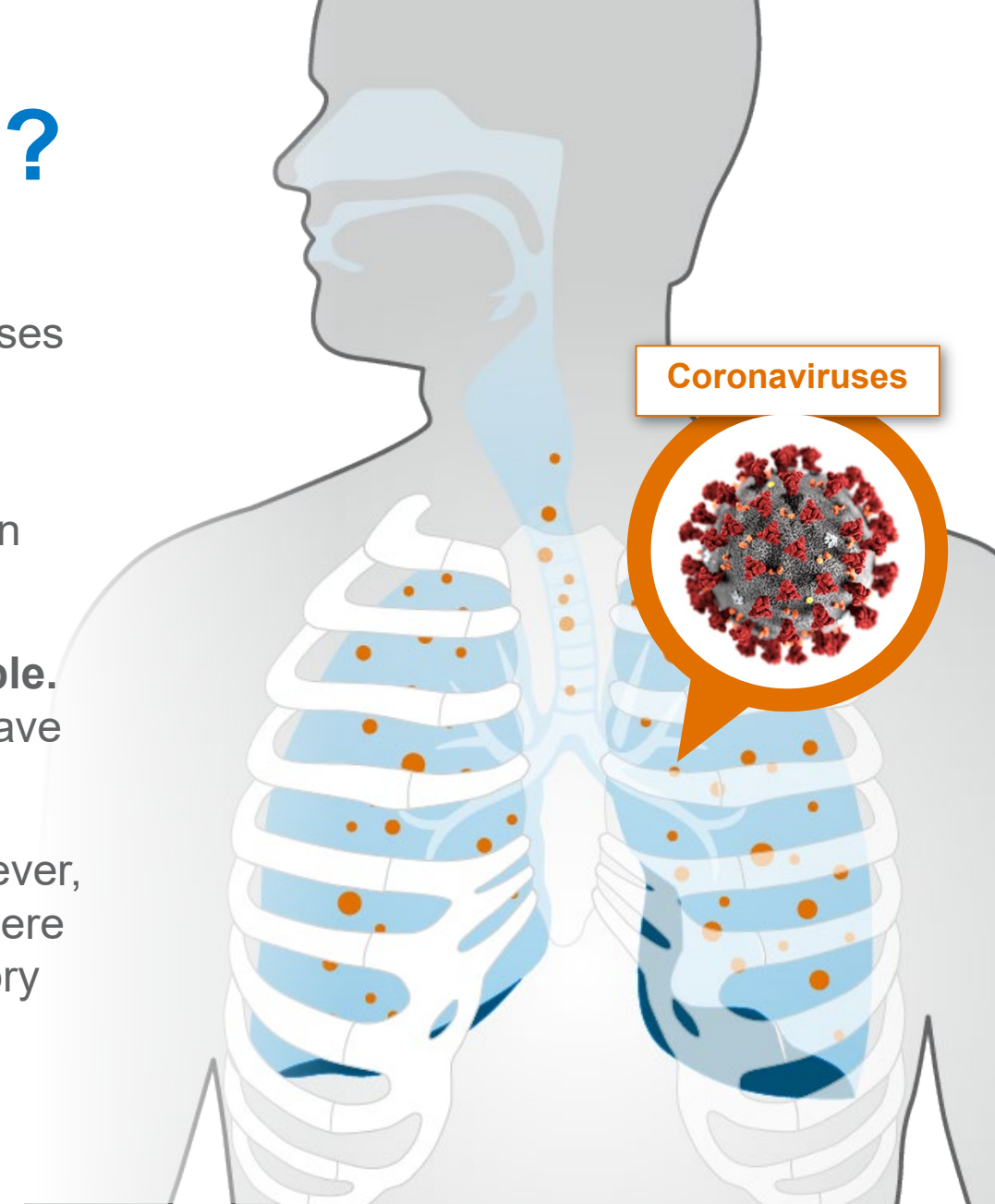
Contact your Ecolab representative for additional questions on products or procedures.

ADDITIONAL INFORMATION:

- [CDC: Interim Guidance for Business and Employers](#)
- [CDC: Guidance for Cleaning and Disinfection](#)
- [CDC: Prevention in Communities, schools, healthcare settings and businesses](#)
- [FDA: Food Safety and the Coronavirus Disease 2019 \(COVID-19\)](#)
- [EFSA: Coronavirus: no evidence that food is a source or transmission route](#)

WHAT IS A CORONAVIRUS?

- **Coronaviruses (CoV)** are a large family of viruses that cause illnesses 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.

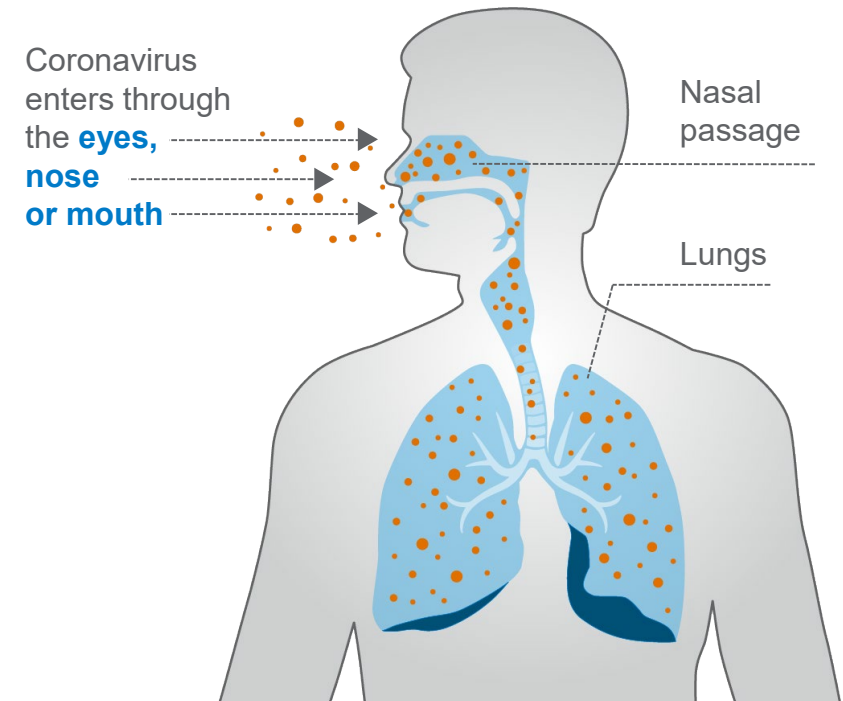


HOW DOES CORONAVIRUS SPREAD?

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.

SURFACE VIABILITY

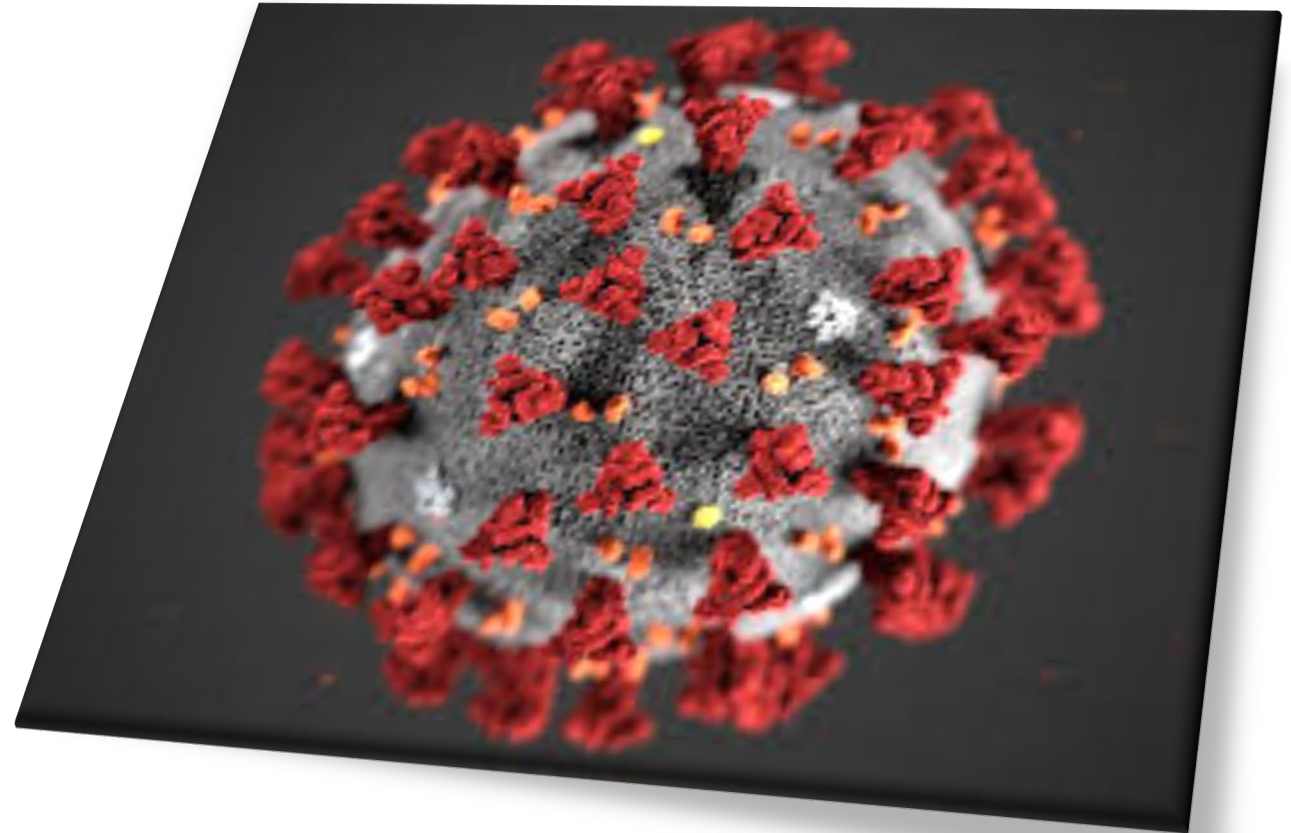
How long can the virus that causes COVID-19 (SARS-CoV-2) live on surfaces? (virus viability)

- Up to:
 - 5-days on doorknobs
 - 4-days on wood
 - 3-days on plastics
 - 2-3 days on stainless-steel
 - 24-hours on cardboard
 - 2-8 hours on aluminum
 - 4-hours on copper
 - Detectable in the air for 3-hours



SARS-COV-2 – THE BASICS:

- A virus is not a living organism
- Needs a host to replicate
- Respiratory
 - Cough
 - Surfaces
- Covered (enveloped) by a protective layer of lipid (fat)
 - You must break envelope down to disable
 - Once the lipid layer of the virus is disabled, the virus is no longer viable
- Not currently known to transmit via food (WHO, FDA, CDC, EFSA, CFIA, etc.)



GENERAL INFECTION PREVENTION GUIDELINES

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

1

MONITOR NEWS AND ADVICE FROM PUBLIC HEALTH AGENCIES

Follow local public health recommendations related to local infection activity and need for isolation and closing.

2

IMPLEMENT GOOD INFECTION PREVENTION PRACTICES

Reinforce personal hygiene throughout your operation.

Provide hygiene materials such as tissues, hand soap and sanitizer.

Stock effective disinfectant products and follow protocols.

3

COMMUNICATE WITH AND MONITOR EMPLOYEES

Educate and inform employees.

Closely monitor employee health.

Have symptomatic employees stay home.

GENERAL PANDEMIC GUIDELINES

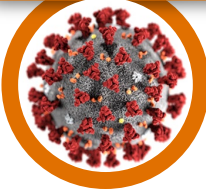
- Follow local public health recommendations related to local pandemic activity and need for isolation and closings.
- Reinforce personal hygiene, hand hygiene, social distancing, and cough etiquette throughout your operations.
- Identify critical staff members and functions – develop a business continuity plan.
- Keep handwashing facilities well stocked with hand soap, warm water, towels and other applicable disinfectant products (per normal procedures).
- Provide hand sanitizer, disinfectant sprays or wipes, and tissues for employees
- Increase hard surface cleaning and sanitizing frequency. Begin disinfecting surfaces frequently touched by employees and visitors.
- Clean and disinfect restrooms at least three times daily.
- Closely monitor employee health. Encourage symptomatic employees to stay home.
- Use proper PPE, as applicable, according to the product label or SDS when cleaning common areas throughout the facility.
- Assess and mitigate risks posed by visitors to the facility.

COVID-19 FOOD & BEVERAGE PLANT ANALYSIS

Stay Informed

The COVID-19 pandemic is constantly evolving, and food & beverage plants should look to local public health authorities for the most current guidance on plant operations and food safety.

Coronavirus



- **Currently, no evidence suggests that COVID-19 is spread to humans through food.**
- Recent regulatory agency guidance (March 2020) states that food contact surfaces do not require a disinfection step; however, disinfection steps may be applied based on individual facilities' risk assessment. If the customer risk assessment mandates a disinfection step, then use a product with an approved emerging viral pathogen or coronavirus claim per your local requirements or guidelines.
- Proper enhanced sanitation protocols should be followed to help prevent the spread of COVID-19 in plant settings.
- Be prepared for managing a potential plant shut down:
 - The **unpredictable environment** or **local authorities** could cause you to shut down
 - Widespread **exposure to COVID-19 within your plant** may necessitate shutting down

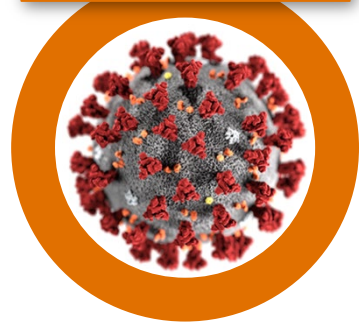
CONSULT YOUR ECOLAB REPRESENTATIVE FOR SUPPORT AND DETAILED GUIDANCE

KEEPING HANDS CLEAN

Viruses may be transmitted through the air, close personal contact or touching a surface with the virus on it, then touching your mouth, nose or eyes.

We can all help protect others by doing the following:

Coronaviruses



HERE'S HOW TO PRACTICE GOOD HANDWASHING:



WET

hands with clean running water, turn off the tap and apply soap.



LATHER

the backs of hands, between fingers and under nails.



SCRUB

for at least 20 seconds.



RINSE

hands well under clean running water.



DRY

hands using a clean towel or air dryer.

IF SOAP AND WATER ARE NOT AVAILABLE,

use an alcohol-based hand sanitizer that contains at least 60% alcohol.



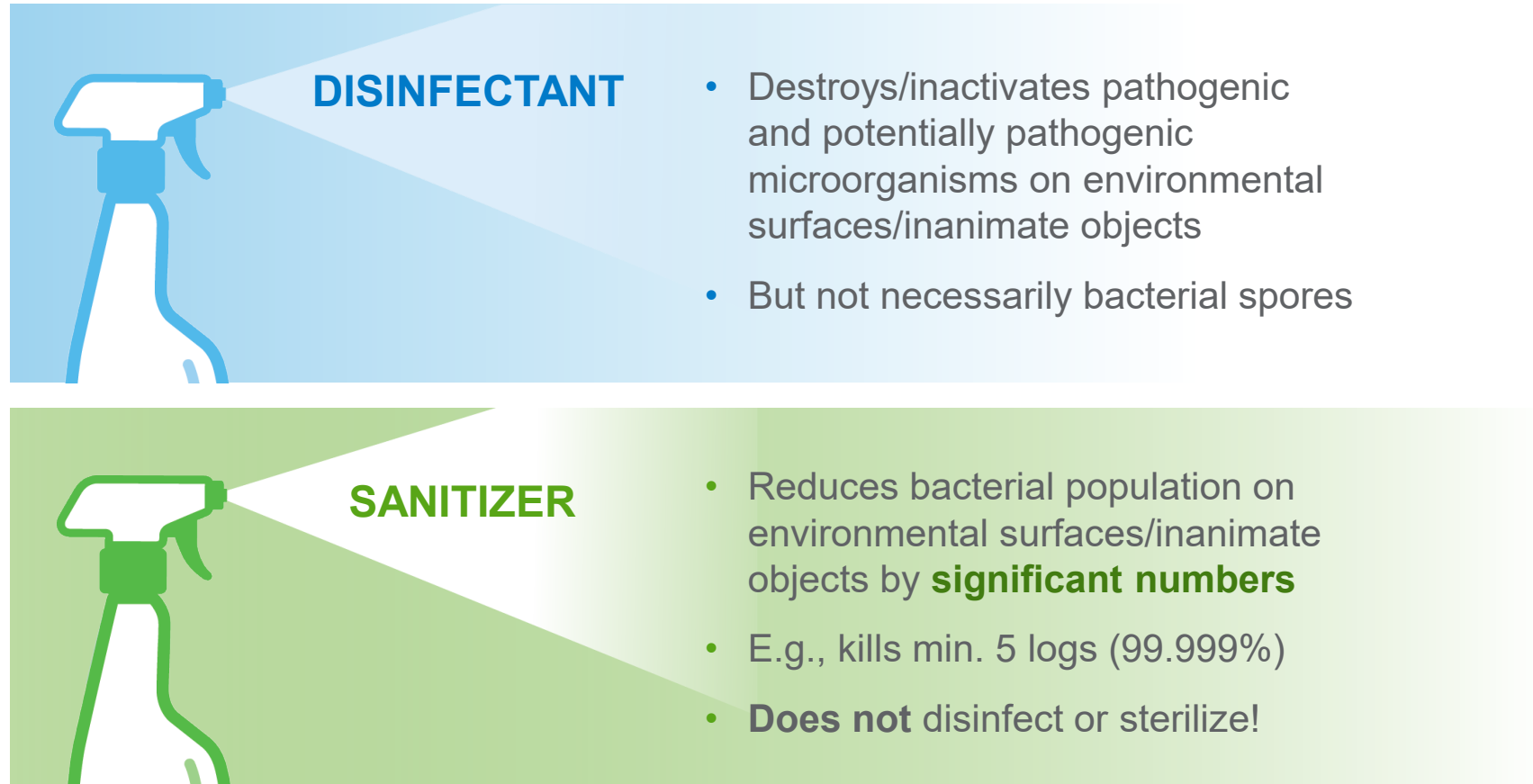
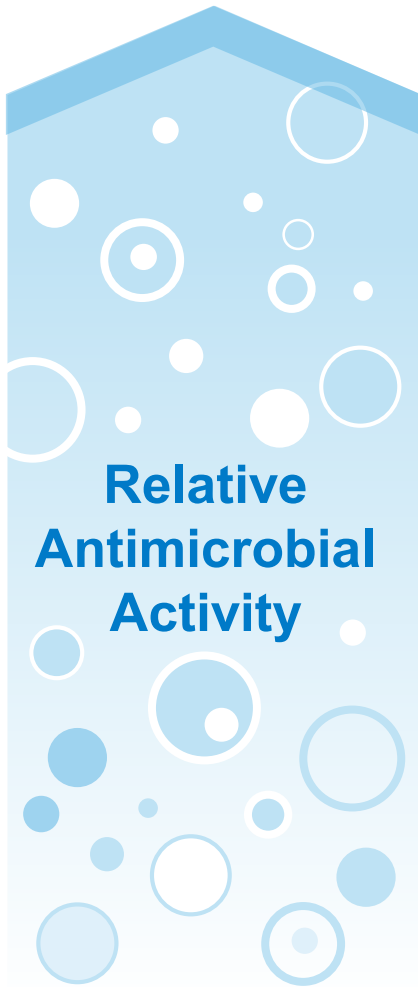
Take **20 seconds**
to wash your hands

EMPLOYEE CHECKLIST

- ✓ Make sure your **workplace is clean and hygienic:**
 - Surfaces (e.g., desks and tables) and objects (e.g., telephones, keyboards) need to be wiped with disinfectant regularly.
- ✓ Promote **regular and thorough handwashing** by employees, contractors and visitors.
- ✓ Understand and **follow your company's travel policy**.
- ✓ **Limit your exposure** by avoiding large gatherings of people and staying at least six feet away from people who are coughing or sneezing.
 - Avoid handshaking and **wash your hands frequently**.
- ✓ If you develop even a mild cough or low-grade fever, **stay home and self-isolate**.
 - Avoid close contact with other people, including family members. Telephone your healthcare provider or the local public health department, giving them details of your recent travel and symptoms.

- ✓ **Do not come to work if you are ill.**
- ✓ **If you believe you have been exposed** to coronavirus, or if someone in your family has been ill/exposed to coronavirus, seek medical advice. Update your HR partner, who will discuss appropriate next steps based on your personal situation.
- ✓ **Prepare to work at home:**
 - Make sure your contact information is current in internal contact lists, including your mobile phone number.
 - Take work materials and your laptop home with you each evening.
 - Be ready to use digital tools to work remotely with your teams.
- ✓ Ensure that you **have a plan in place** to address the possibility that you or a family member might need to be quarantined because of exposure to coronavirus or illness.
- ✓ Consider how you will **limit exposure to other family members**, and how you will handle childcare, school closings and other family responsibilities.

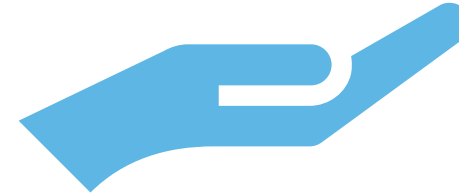
HARD SURFACE SANITIZERS: TERMS



SANITIZERS: HARD SURFACES V. HANDS



- Hard surface sanitizers are approved for use on hard surfaces
- Typically regulated by separate regulatory agency (e.g., USA Environmental Protection Agency, EPA)
- Criteria and label claims based on efficacy of inactivating target microorganisms on hard surfaces
- Check for applicability for gloves



- Hand sanitizers directly contact skin
- Typically regulated by separate regulatory agency (e.g., USA Food & Drug Administration, FDA)
- Criteria for approval based on safety for application to human skin

CANNOT BE USED INTERCHANGEABLY! MUST FOLLOW LABEL INSTRUCTIONS!

USA*: HOW TO KNOW IF DISINFECTANTS ARE APPROVED FOR USE AGAINST THE SARS-COV-2 VIRUS



Find the EPA Registration Number on the product label

ECOLAB®

Synergex™

Sanitizer - Disinfectant

ACTIVE INGREDIENTS:
Hydrogen Peroxide.....10.70%
Peroxyacetic Acid.....0.52%
Peroxyacetic Acid.....2.38%
OTHER INGREDIENTS:
TOTAL:.....100.00%

KEEP OUT OF REACH OF CHILDREN

DANGER

FOR INDUSTRIAL USE
STRONG OXIDIZING AGENT
PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER-CORROSIVE: Causes irreversible eye damage and skin burns. May be fatal if absorbed through the skin. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses), protective clothing and rubber gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. After the product has been diluted according to use directions Personal Protective equipment is not required.
PHYSICAL AND CHEMICAL HAZARDS: Strong oxidizing agent. Corrosive. Do not use in concentrated form. Mix only with water according to label instructions. Never bring concentrated product into contact with other sanitizers, cleaners or organic substances.

EPA Reg. No. 1677-250

See other label for directions for use.
770814/5301/0519

EPA Reg. No. 1677-250

Company Number

Product Number

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
FOR EMERGENCY MEDICAL INFORMATION, CALL TOLL-FREE 1-800-328-0000.

NOTICE: HAZARDOUS MATERIALS: CALL 1-800-328-0000.
NOTE TO PHYSICIAN: Probable mucous damage may contraindicate the use of gastric lavage.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

PESTICIDE STORAGE: Product must be kept cool and in a vented container to avoid any explosion hazard.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of acute pesticide waste is prohibited by Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

CONTAINER HANDLING AND DISPOSAL: Non-refillable container. Do not reuse or refill this container. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container on its end and roll it back and forth several times. Empty the residue into application equipment or a mix tank or store residue for later use or disposal. Repeat procedure two more times. Then offer for recycling or reconditioning if appropriate or puncture or rupture and dispose of in a sanitary landfill or by incineration.



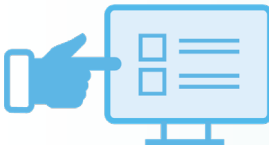
Antimicrobial

NET CONTENTS:
50 US GAL (189 L)
6301417



DO NOT STORE
IN DIRECT
SUNLIGHT

KEEP FROM
FREEZING



Verify your product is on this list:

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

List N: Disinfectants for Use Against SARS-CoV-2

List N includes products that meet EPA's criteria for use against SARS-CoV-2, the novel coronavirus that causes the disease COVID-19.

When purchasing a product, check if its **EPA registration number** is included on this list. If it is, you have a match and the product can be used against SARS-CoV-2. You can find this number on the product label – just look for the EPA Reg. No. These products may be marketed and sold under different brand names, but if they have the same EPA registration number, they are the same product.

- [Frequently Asked Questions about List N: Disinfectants for Use Against SARS-CoV-2](#)
- [Emerging Viral Pathogen Claims for SARS-CoV-2: Submission Information for Registrants](#)

Note: Inclusion on this list does not constitute an endorsement by EPA. There may be additional disinfectants that meet the criteria for use against SARS-CoV-2. EPA will update this list with additional products as needed.

List N was last updated on March 26, 2020.

Show 25 entries

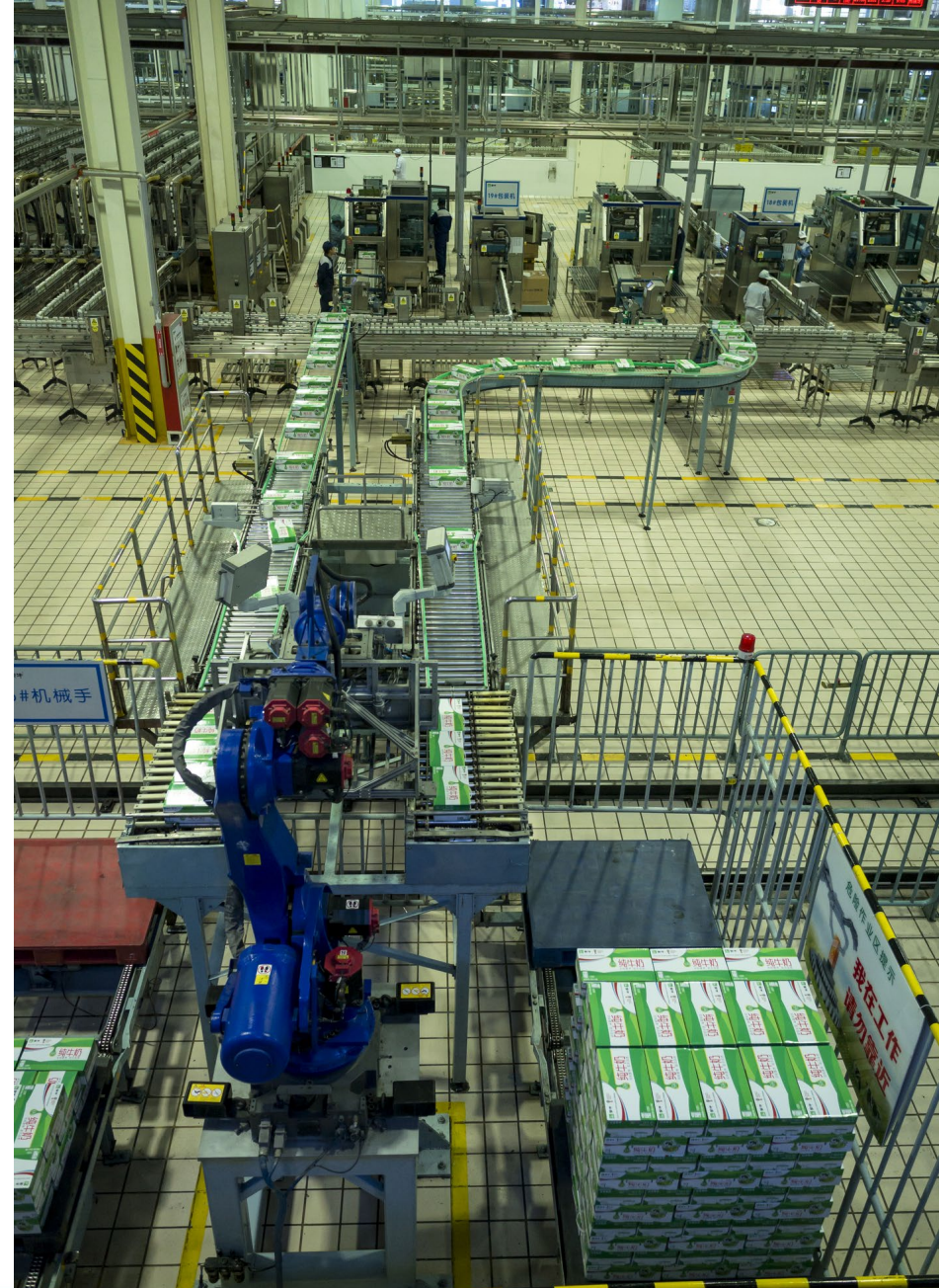
Export to PDF

List N: Products with Emerging Viral Pathogens AND Human Coronavirus claims for use against

EPA Registration Number	Active Ingredient/s	Product Name	Company	Follow the disinfection directions and preparation the following virus
84198-1	Hydrogen peroxide	Peroxy HDOX	Earth Laboratories Inc	Norovirus
45745-11	Hydrogen peroxide	HP202	Midlab	Rotavirus; Norovirus; Rhinovirus
65402-9	Peroxyacetic acid; Hydrogen Peroxide	VigorOx 15/10 Antimicrobial Agent	PeroxyChem LLC	Feline calicivirus
1043-87	Phenolic	Vesphene II se	Steris Corporation	Adenovirus
1043-91	Phenolic	LpH®	Steris Corporation	Adenovirus
1839-100	Quaternary ammonium	Veterinarian Type Disinfectant	Stepan Company	Feline calicivirus; norovirus
89833-3	Quaternary ammonium	D7 Part 1	Decon7 Systems LLC	Norovirus

PANDEMIC CLEANING, DISINFECTION, AND HYGIENE CONSIDERATIONS

**Food & Beverage
Production Area**

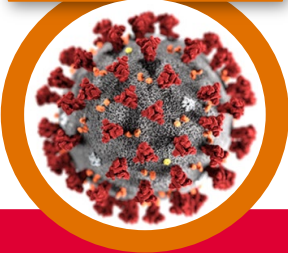


FOOD MANUFACTURING GUIDING PRINCIPLES

- Regulated food manufacturers are required to follow Current Good Manufacturing Practices (cGMPs) and many have food safety plans that utilize Hazard Analysis and Critical Control Point (HACCP) or similar methodology depending on their regulatory agency or chosen food safety certification program.
- cGMPs and food safety plans have requirements for maintaining clean and sanitized facilities and food contact surfaces.
- Food Safety Plans and current control measures (cGMPs, CCPs, Preventive Controls, etc.) may need to be evaluated in light of the current pandemic.
- Recent regulatory agency guidance (March 2020) states that food contact surfaces do not require a disinfection step; however, disinfection steps may be applied based on individual facilities' risk assessment. If the customer risk assessment mandates a disinfection step, then use a product with an approved emerging viral pathogen or coronavirus claim per your local requirements or guidelines.
- We encourage coordination with local/national health officials for all businesses so that timely and accurate information can guide appropriate responses in each location where their operations reside.

RISK EVALUATION FOR FOOD PROCESSING PLANTS

Coronavirus



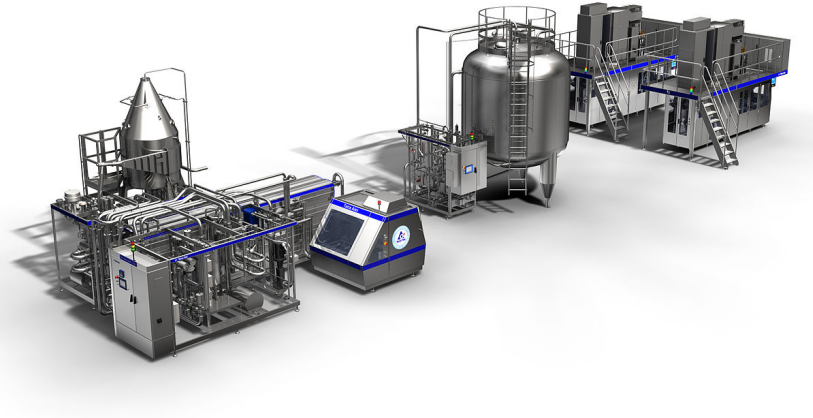
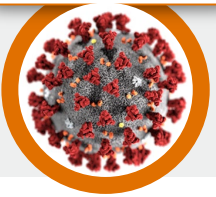
Ecolab recommends that customers take the following steps based on the risk profile of their operations. This 3-tiered guidance is informed by public health reports and our understanding of the scientific characteristics of underlying causes.

LEVEL	GREEN: Standard Prevention	YELLOW: Risk Reduction	RED: Remediation
DESCRIPTION	RISK PROFILE: No known outbreak in your geographic area	RISK PROFILE: The potential exists for an outbreak in your geographic area	RISK PROFILE: A publicly declared outbreak in your facility is disrupting normal business
ACTIONS	<ul style="list-style-type: none">Follow current proceduresRegularly revisit training to ensure complianceMaintain standard hygiene and sanitizing practicesAssess and stock cleaning & sanitation products and materialsFollow your food contact and non-food contact sanitation procedures	<ul style="list-style-type: none">Educate employees on infection control, PPE use and communicate Infection Control ProceduresAssess and mitigate risks posed by visitors to the facilityAssess your preparedness status and collaborate with vendor partners on response readinessDevelop preparedness procedures for heightened cleaning, sanitizing & disinfectingEvaluate facility usage, lead times, stock shelf life and impact on ordering suppliesIncrease frequency of cleaning and sanitation	<ul style="list-style-type: none">Execute enhanced procedures to respond to an outbreak in your facility, designed to break the chain of infection or illnessImplement heightened cleaning, sanitizing & disinfecting proceduresPerform heightened cleaning, sanitizing & disinfecting procedures using approved productsPlan for disinfection cleaning prior to down time or quarantineExecute reopening procedures after down time or quarantine

PRODUCTION AREAS

GREEN
Standard
Prevention

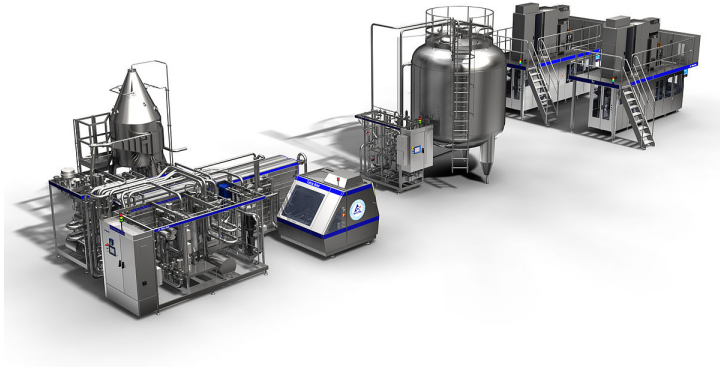
Coronavirus



ACTION: Follow current procedures.

- Follow cGMPs and sanitation standard operating procedures for sanitizing practices
- Regularly revisit training to ensure compliance
- Maintain standard hygiene and sanitizing practices
- Assess and stock standard cleaning & sanitation products and materials, including PPE
- Follow your food contact and non-food contact sanitation procedures

PRODUCTION AREAS

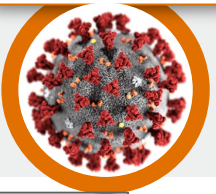


ACTION: Increase your cleaning measures and reinforce training to minimize risk.

- Educate employees on infection control, PPE use and communicate infection control procedures
- Reinforce hand hygiene, social distancing, and cough etiquette
- Increase frequency of cleaning and disinfection of high-touch areas (e.g., door handles, handrails) to hourly
- Assess preparedness for move to RED and collaborate with vendor partners on response readiness
 - Evaluate facility usage, lead time, stock shelf life and impact on ordering supplies
 - Order supplies needed for a possible pandemic, including additional hand hygiene, cleaning, sanitation and PPE
 - Identify essential employees and assess/mitigate risks posed by visitors/vehicles to the facility
 - Develop preparedness procedures for heightened cleaning, sanitizing & disinfection
 - Develop a risk assessment to determine if additional disinfection steps will be required for food-contact and/or adjacent surfaces
- Modify work practices and operations (e.g., handshakes, work-station layout, etc.)

YELLOW
Risk
Reduction

Coronavirus



EXAMPLES OF HIGH-TOUCH AREAS

- Door handles and push plates
- Light switches
- Hand railings
- Shared tables, chairs, benches
- Eyewash touchpoints
- Computer touch screens
- On/Off switches
- Equipment buttons
- Equipment doors and handles
- Hose grip areas
- Conveyor railings
- Control panels
- Air curtains
- Radios
- Forklift hand contact points
- Waste receptacle touch points
- Beverage/coffee stations
- Vending machines
- Taps and faucets
- Countertops
- Microwaves, water cooler, refrigerator handles
- Showers and handles
- Sink taps and toilet handles
- Towel dispenser touchpoints
- Soap dispenser touchpoints
- Computer keyboards & controls
- Fax, copier touchpoints
- Cabinet & file drawer handles
- Telephones
- Clip boards
- Vehicles hand contact points

HIGH TOUCH AREA 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

If risk mandates a disinfection step, then use a product with an approved emerging viral pathogen or coronavirus claim* per your local requirements or guidelines.



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.

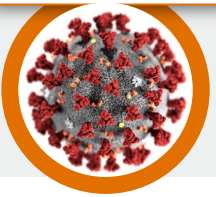


PRODUCTION AREAS



RED
Remediation

Coronavirus



ACTION: Respond to an outbreak in your facility to break the chain of infection or illness.

- Follow local public health recommendations related to business operations, isolation or closing
- Use remediation plan for high-touch locations and public spaces (e.g., public restrooms, locker rooms, public spaces)
- Follow enhanced (more frequent) cleaning & sanitizing procedures
- Disinfect food contact and/or adjacent surfaces if risk assessment mandates** additional disinfection steps (*see red text below*)
- Provide clear guidance for reporting illness and remediation procedures for new events
- Limit face-to-face contact between employees, customers and vendors
- Refuse entry to symptomatic employees, customers or vendors or other visitors

Production Area (General)	Production Area (Wet Cleaning Equipment**)	Production Area (Semi-Dry Cleaning Equipment**)	Production Area (Dry Cleaning Equipment**)
<ul style="list-style-type: none"> Increase cleaning and disinfection frequency, especially for touch points such as door handles, light switches, equipment buttons, control panels, etc. Increase hand hygiene practices Implement social distancing protocol between employees per local requirements Utilize appropriate PPE for cleaning & disinfecting 	<ol style="list-style-type: none"> <i>Disinfect using Ecolab COVID-19 product list following concentration & time requirements</i> <i>Rinse</i> Clean per current SSOPs Rinse <i>Disinfect using Ecolab COVID-19 product list following concentration & time requirements</i> <i>Rinse</i> Sanitize with a food contact sanitizer Rinse, as required* 	<ol style="list-style-type: none"> Dry clean – scrape, wipe, vacuum (with HEPA filter discharge on vacuum)*** <i>Disinfect – Spray surfaces with chemistry approved on Ecolab_FB_Coronavirus list, follow recommended concentration and time utilizing a spray bottle</i> <i>Rinse – Use hot water in spray bottles to mist surface, wipe with single use towels</i> Clean – Clean per current SSOP wash step(s) Rinse – Use hot water in spray bottles to mist surface, wipe with single use towels <i>Viricidal (Disinfect) Intervention – Spray surfaces with chemistry approved on Ecolab_FB_Coronavirus list, follow recommended concentration and time utilizing a spray bottle</i> <i>Rinse – Use hot water in spray bottles to mist surface, wipe with single use towels</i> Inspect – ATP, micro swabs, etc. per current inspection protocol Sanitize with a food contact sanitizer per current SSOP Rinse, as required* 	<ol style="list-style-type: none"> Dry clean – scrape, wipe, vacuum (with HEPA Filter discharge on vacuum)*** Wipe – Use single use towels Clean – Clean per current SSOP wash step(s) Wipe – Use single use towels <i>Disinfect – Spray surfaces with chemistry approved, follow recommended concentration and time per label for disinfection; utilizing a spray bottle</i> <i>Wipe – Use single use towels</i> Inspect – ATP, micro swabs, etc. per current inspection protocol Food Contact Sanitizing per current SSOP

* As required by local regulations

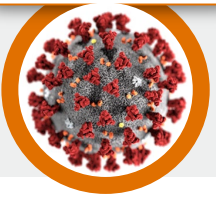
** Potentially affected per facility risk assessment

*** Compressed air not recommended, as it could atomize microorganisms like viruses

OTHER IMPORTANT PROCEDURES

RED
Remediation

Coronavirus



CLEAN IN PLACE (CIP) AND CLEAN OUT OF PLACE (COP)

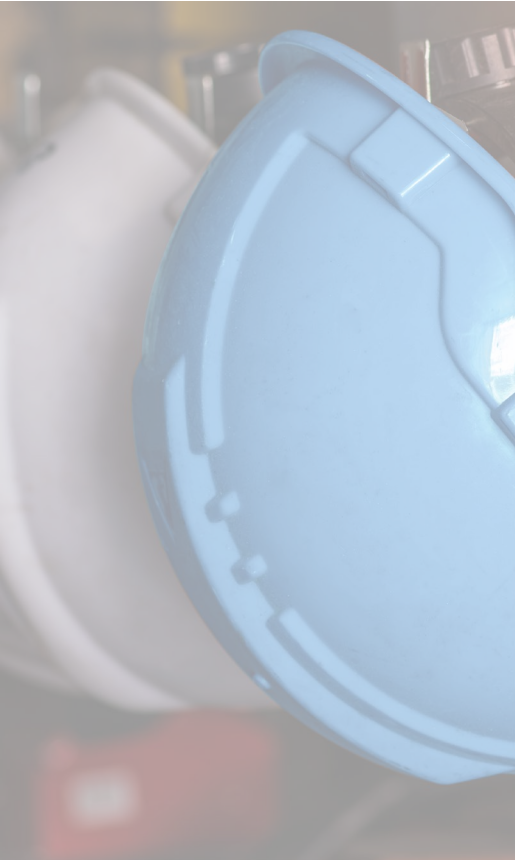
- Follow current validated SSOPs for CIP and COP of equipment

TOOLS

- Follow disinfection wash on tools at end (Rinse, Wash, Rinse, Disinfect, Rinse, No-rinse sanitize)
- Single-use tools should go through disinfection process prior to disposal
- **Tools used to assemble equipment post-cleaning should be disinfected or sanitized prior to use for assembling clean equipment**

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Double glove, Tyvek suits (if available), aprons, rain suits, arm sleeves, face mask per CDC recommendations, protective eye wear, face shield
- **Disinfect PPE prior to removal & disposal**



HARD SURFACE SANITIZERS & DISINFECTANTS

NOVEL
CORONAVIRUS
COVID-19

NORTH AMERICA
UNITED STATES

ECOLAB PREVENTIVE SOLUTIONS

- Regional list of products expected to be effective against virus causing COVID-19
- Check with local authorities or your Ecolab representative.
- Products / Labels are based on the local regulatory requirements, the same product names may not have the same claims around the world

The products in the table below meet the criteria for claims against emerging viral pathogens and therefore can be used against 2019 Novel Coronavirus when used in accordance with the directions for use against the listed supporting virus on hard, non-porous surfaces.

Allocation Disclaimer: Due to increased demand, certain products are being placed on allocation to ensure we are able to get some product to the largest number of customers.

► HARD SURFACE SANITIZERS & DISINFECTANTS

PRODUCT NAME	PRODUCT SIZE	PRODUCT CODE	NAME OF SUPPORTING, VIRUS, DILUTION RATE AND CONTACT TIME
BOOST 3200* EPA Reg. # 63761-8-1677	5 GALLON 55 GALLON	6300356 6300357	Norovirus (Feline calicivirus surrogate) 12.8 - 16 fl oz/gal 10 minutes**
BOOST 3200 CIP* EPA Reg. # 63761-8-1677	5 GALLON 55 GALLON	6300590 6300591	
BOOST SURFACE TREATMENT EPA Reg. # 63761-10-1677	400 LB	6302114	Norovirus (Feline calicivirus surrogate) 0.92-1.15 lbs/gallon 10 minutes**
OXONIA ACTIVE™ EPA Reg. # 1677-129	4.5 GALLON 50 GALLON 300 GALLON	6300838 6300839 6300840	Adenovirus Type 5 3 fl oz/gal 3 minute**
SYNERGEX™ EPA Reg. # 1677-250	50 GALLON 4 X 50 GALLON 304 GALLON 14.5 GALLON	6301417 6301418 6301419 6302041	Reovirus 1 fl oz / 4-7 gal 5 minutes**
OXY-SEPT® 333 EPA Reg. # 1677-129	4-96 OZ.	6301025	Adenovirus Type 5 3 fl oz/gal 3 minute**

*For disinfection, add BOOST 3201 (6300321 or 6300322) according to the label instruction (NOTE: BOOST 3201 by itself does not have an emerging pathogen claim)

**May need to reapply to keep wet for the extended contact time.

Follow your existing cleaning & sanitizing processes. Should there be a need to do a viricidal disinfection, follow the concentration and time listed in the table above for the product. Follow this with the normal cleaning & sanitizing program to remove any residues that might be left from the viricidal disinfection.

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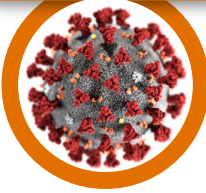
PANDEMIC CLEANING, DISINFECTION, AND HYGIENE CONSIDERATIONS

Shutdown and Re-start Considerations



COVID-19 GUIDANCE FOR PLANT OPERATIONS

Coronavirus



1

Pre-shut down considerations

2

Plant shutdown procedures

- No COVID-19 exposure
- COVID-19 exposure

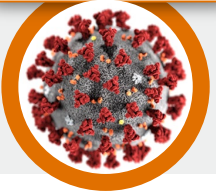
3

Plant restart procedures

1

PRE-SHUT DOWN CONSIDERATIONS

Coronavirus



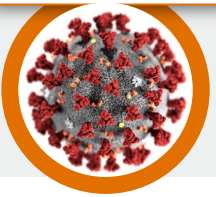
- ▶ Assess preparedness for move to shut down and collaborate with vendor partners on response readiness
 1. Evaluate facility usage, lead time, stock shelf life and impact on ordering supplies
 2. Ensure you have supplies on hand for re-startup, including hand hygiene, cleaning, sanitation and PPE
 3. Assign a Facility Shut Down Team Leader.
 4. Identify essential employees for (and during) shutdown activities.
 5. Review procedures for startup.

2A

PLANT SHUTDOWN: NO COVID-19 EXPOSURE

ACTION: Perform full cleaning and sanitization prior to shutdown.

Coronavirus



1

Production shutdown only

(Coolers remain on)

- Run full Cleaning & Sanitization program

2

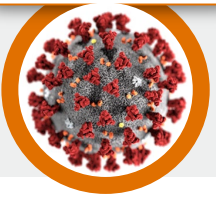
Full shutdown

(Including air-handling, ammonia systems, and coolers)

- Consult with your Ecolab Food & Beverage representatives for best practice procedures for hygiene
- Consult with your Nalco Water representatives for best practice procedures for utilities



PLANT SHUTDOWN: COVID-19 EXPOSURE



Disinfect food contact and/or adjacent surfaces **if risk assessment mandates** additional disinfection steps prior to shutdown (see below)



1

Production shutdown only

(Coolers remain on)

- Perform thorough cleaning and sanitation (including drain cleaning, air-handling systems, high-touch areas, and draining CIP to store)
 - Add viricidal step if mandated by risk assessment.
- Disinfect tools
- Avoid using compressed air as this could atomize the virus; vacuum with HEPA filters on vacuum discharge
- Use proper PPE and disinfect PPE prior to removal and disposal

2

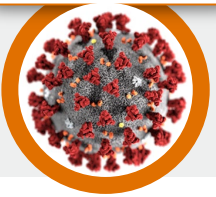
Full shutdown

(Including air-handling, ammonia systems, and coolers)

- Consult with your Ecolab Food & Beverage and Nalco Water representatives for best practice procedures for hygiene and utilities, respectively.

VIRICIDAL DISINFECTION (US)

ENVIRONMENTAL WET CLEANING



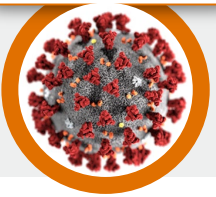
Disinfect food contact and/or adjacent surfaces **if risk assessment mandates** additional disinfection steps prior to shutdown (*see red text below*)

1. *Disinfect – Saturation - use chemistry approved on Ecolab_FB_Coronavirus list, follow recommended concentration and time*
2. *Rinse*
3. Clean per current SSOP wash step(s)
4. Rinse
5. *Viricidal (Disinfect) Intervention – Saturation - use chemistry approved on Ecolab_FB_Coronavirus list, follow recommended concentration and time*
6. *Rinse*
7. Inspect – ATP, micro swabs, etc. per current inspection protocol
8. No-Rinse Food Contact Sanitizing per current SSOP



VIRICIDAL DISINFECTION (US)

ENVIRONMENTAL SEMI-DRY CLEANING

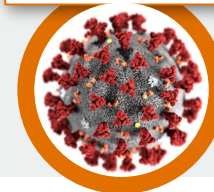


Disinfect food contact and/or adjacent surfaces **if risk assessment mandates** additional disinfection steps prior to shutdown (*see red text below*)

1. Dry clean – scrape, wipe, vacuum (HEPA filter discharge on vacuum) *no compressed air cleaning
2. *Disinfect – Spray surfaces with chemistry approved on Ecolab_FB_Coronavirus list, follow recommended concentration and time utilizing a spray bottle*
3. *Rinse – Use hot water in spray bottles to mist surface and wipe with single use towels*
4. Clean – Clean per current SSOP wash step(s)
5. Rinse – Use hot water in spray bottles to mist surface and wipe with single use towels
6. *Viricidal (Disinfect) Intervention – Spray surfaces with chemistry approved on Ecolab_FB_Coronavirus list, follow recommended concentration and time utilizing a spray bottle*
7. *Rinse – Use hot water in spray bottles to mist surface and wipe with single use towels*

VIRICIDAL DISINFECTION (US)

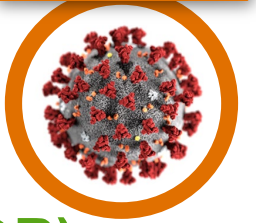
ENVIRONMENTAL DRY CLEANING



Disinfect food contact and/or adjacent surfaces **if risk assessment mandates** additional disinfection steps prior to shutdown (*see red text below*)

1. Dry clean – scrape, wipe, vacuum (HEPA Filter discharge on vacuum) *no compressed air cleaning
2. Wipe – Use single use towels
3. Clean – Clean per current SSOP wash step(s)
4. Wipe – Use single use towels
5. *Disinfect – Spray surfaces with chemistry approved, follow recommended concentration and time per label for disinfection; utilizing a spray bottle*
6. *Wipe – Use single use towels*
7. Inspect – ATP, micro swabs, etc. per current inspection protocol
8. No-Rinse Food Contact Sanitizing per current SSOP

OTHER PROCEDURES



CLEAN IN PLACE (CIP) AND CLEAN OUT OF PLACE (COP)

- Follow current validated SSOPs for CIP and COP of equipment

TOOLS

- Follow disinfection wash on tools at end (Rinse, Wash, Rinse, Disinfect, Rinse, No-rinse sanitize)
- Single-use tools should go through disinfection process prior to disposal
- **Tools used to assemble equipment post-cleaning should be disinfected or sanitized prior to use for assembling clean equipment**

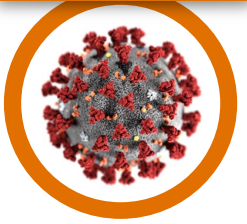
RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Double glove, aprons, rain suits, arm sleeves, face mask per CDC recommendations, protective eye wear, face shield
- **Disinfect PPE prior to removal & disposal**

3a

PLANT RE-START

Coronavirus



ACTION: If possible, perform periodic sanitation tasks during shut down, prior to re-startup

A

NO COVID-19 EXPOSURE

- Follow current validated SSOPs for cleaning systems and environment prior to starting up

B

FOLLOWING COVID-19 EXPOSURE

- Perform complete cleaning & sanitization program, with extra attention on critical steps:

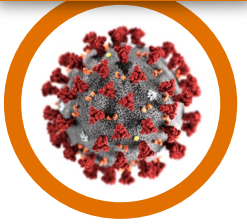
- Clean air handling systems – 3rd party
- Change air filters and filters for compressed air systems
- Clean water filtration systems and change filters
- Flush and clean water softener systems prior to using that water
- Foam, clean, and sanitize all CIP systems prior to use
- Check all CIP filter screens along with inline check valves
- Perform detailed environmental cleaning, including drains
- Perform all cleaning tasks normally done prior to production start-up

Consult your Ecolab Food & Beverage and Nalco Water representatives for additional details and best practice procedures

3b

POST START UP

Coronavirus



ACTION: : Increase your cleaning measures and reinforce training to minimize future risk.

A

- Associates:
 - Continue educating employees on infection control, PPE use and communicate infection control procedures
 - Reinforce hand hygiene, social distancing, and cough etiquette
 - Modify work practices and operations (e.g., handshakes, work-station layout, etc.)
- Facility:
 - Increase frequency of cleaning and disinfection of high-touch areas (e.g., door handles, handrails) to hourly

PANDEMIC CLEANING, DISINFECTION, AND HYGIENE CONSIDERATIONS

Offices and Non-Production Areas



WELFARE AREA GUIDELINES

Lobbies, entrances, hallways, workspaces, breakrooms, etc.

STANDARD PROCEDURES

- Pick up debris.
- 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).

REMEDIATION PROCEDURES

- Follow **STANDARD PROCEDURES** above.
- If risk mandates a disinfection step, then use a product with an approved emerging viral pathogen or coronavirus claim per your local requirements or guidelines, using at the appropriate concentration and contact time.
- Consider closing non-essential public gathering areas such as bar, fitness center and pool to limit transmission.
- Consider providing alcohol-based hand sanitizers in public areas especially near touchpoints.



CONSIDERATIONS

- Provide Personal Protective Equipment (e.g., gloves, goggles/eye protection, masks) as directed by local regulatory 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.
- For offices, consider limiting non-essential visitors; restrict entry of symptomatic visitors or those who have been exposed.
- Discourage gatherings of people and encourage social distancing
- Follow all guidance as directed by public health authorities.

➤ Specific touchpoints

Door handles, push plates, door frames, hand railings, light switches, elevator buttons, tables and chairs, drinking fountains, coffee and beverage stations, cabinet handles, faucets, vending and ice machines, public information kiosk, telephone and keypad, desks, computer monitors

ECOLAB PREVENTIVE SOLUTIONS

ALTERNATIVE PRODUCTS FOR CLEANING, SANITIZING &
DISINFECTING IN NON-PRODUCTION & OFFICE AREAS

▶ HARD SURFACE PRODUCTS

RED
Remediation

ALTERNATIVE DISINFECTANTS FOR USE AGAINST SARS-COV-2**:

Wear proper PPE – at a minimum gloves and eye protection (see SDS for any additional PPE requirements)

Follow recommended concentration and time on Ecolab_FB_Coronavirus list

- Mix a fresh bucket of disinfectant solution
 - Fresh solution should be made every shift or whenever the solution becomes visibly soiled
- Use single-use towels
- Dip single-use towel into disinfectant
- Wring-out single-use towel
- Wipe precleaned surfaces
- After required contact time, follow with a fresh water wet towel wipe to minimize chemical residue and possible corrosion on non-stainless surfaces
- Discard used single-use towel
 - DO NOT** dip same towel once used back into sanitizer solution
 - NOTE:** Area must stay visibly wet for the time stated on Ecolab_FB_Coronavirus list
 - Use the EPA secondary label for these products.**

The products in the table below have demonstrated effectiveness against viruses similar to SARS-CoV-2 on hard, non-porous surfaces. Therefore, these products can be used against SARS-CoV-2 when used in accordance with the directions for use against the supporting virus listed below on hard, non-porous surfaces. Refer to the CDC website at <https://www.cdc.gov/coronavirus/2019-ncov/index.html> for additional information.

PRODUCT NAME	SKU	PACK SIZE	NAME OF SUPPORTING VIRUS, DILUTION RATE, CONTACT TIME	DILUTION FOR 32 FL OZ BOTTLE
SYNERGEX™ EPA Reg. # 1677-250	6301417	50 GAL	REOVIRUS 1 FL OZ/4-7 GAL 5 MINUTES***	1.85 ML/32 FL OZ
	6301418	4 x 50 GAL		
	6301419	304 GAL		
	6302041	14.5 GAL		
OXONIA ACTIVE™ EPA Reg. # 1677-129	6300838	4.5 GAL	ADENOVIRUS TYPE 5 3 FL OZ/GAL 3 MINUTES***	22.2 ML/32 FL OZ
	6300839	50 GAL		
	6300840	300 GAL		
BOOST 3200†/3201 †EPA Reg. # 63761-8-1677	6300356/6300321	5 GAL	NOROVIRUS (FELINE CALICIVIRUS SUR-ROGATE) 12.8-16 FL OZ/GAL 10 MINUTES***	118.4 ML/32 FL OZ
	6300357/6300322	55 GAL		

***EPA products with emerging pathogen claims that are listed on EPA's list N with office use applications on the label.

***May need to reapply to keep wet for the extended contact time.

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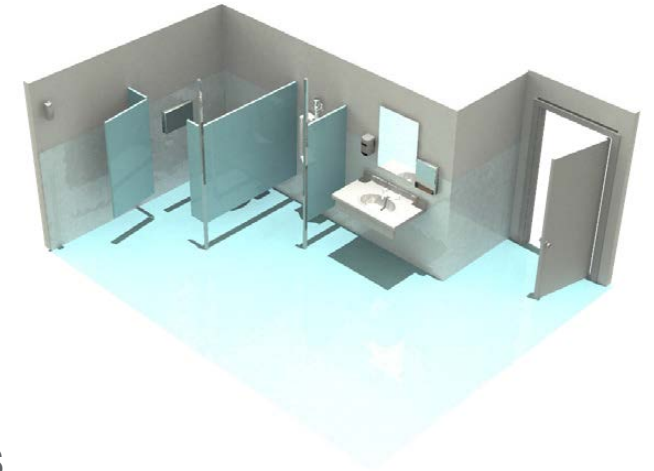
RESTROOM GUIDELINES

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, shower/tub, 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.

REMEDIAL PROCEDURES

- Follow **STANDARD PROCEDURES** above.
- Increase frequency of deep cleaning and high touch point **disinfection**.
- Increase frequency of hard surface **disinfection*** using an approved disinfectant with an emerging viral pathogen or coronavirus claim.



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, toilet and urinal handles, towel and soap dispensers, hand dryers, baby changing station, trash can, countertops, feminine hygiene receptacle, toilet paper dispensers,

DON'T FORGET THE BASIC'S



MORE INFORMATION

- For more information, contact your Ecolab Representative
 - Visit **ecolab.com/coronavirus**
-
- World class training programs and tools
 - Webinars
 - On-site technical support
 - 24/7 call center support





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IDFA

**International
Dairy Foods Association**

Questions??

Please use the chat box to submit your
questions



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Thank you



CoronaVirus@idfa.org