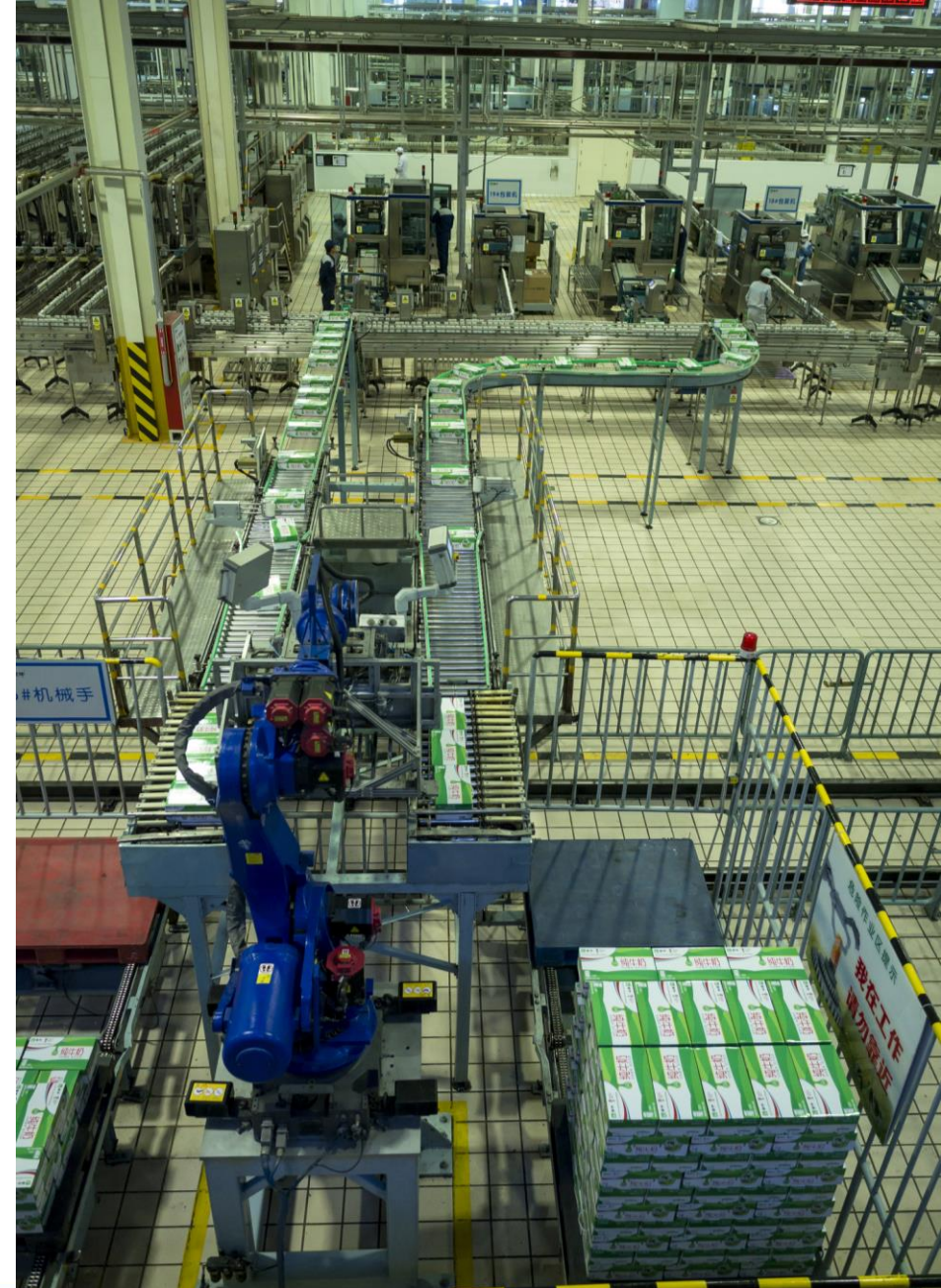


PANDEMIC CLEANING, DISINFECTION, AND HYGIENE CONSIDERATIONS

Food & Beverage Production Area



WHAT WE KNOW ABOUT CORONAVIRUS (COVID-19)

Coronaviruses



- **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](#)
- 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.



Sources: (1) <http://jiangsu.sina.com.cn/news/s/2020-01-15/detail-iihnzhha2508664.shtml> (2) <http://wjw.wuhan.gov.cn/front/web/showDetail/2020011509040>
(3) http://news.youth.cn/jsxw/202001/t20200115_12170407.html (4) https://www3.nhk.or.jp/nhkworld/en/news/20200116_46/ (5) <http://wjw.wuhan.gov.cn/front/web/showDetail/2020011609057>
(6) <http://wjw.wuhan.gov.cn/front/web/list2nd/no/710> (7) <http://wjw.wuhan.gov.cn/front/web/showDetail/2020011909074>

EMPLOYEE CHECKLIST

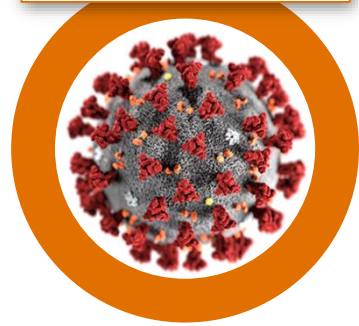
- ✓ Make sure your **workplace is clean and hygienic:**
 - Surfaces (e.g., desks and tables) and objects (e.g., telephones, keyboards) need to be wiped with disinfectant regularly.
- ✓ Promote **regular and thorough handwashing** by employees, contractors and visitors.
- ✓ Understand and **follow your 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.

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:



1

WET

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



2

LATHER

the backs 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.

Take **20 seconds** to wash your hands

IF SOAP AND WATER ARE NOT AVAILABLE,

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

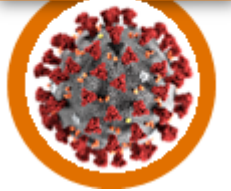


COVID-19 FOOD PLANT ANALYSIS

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

SURFACE DETECTABILITY

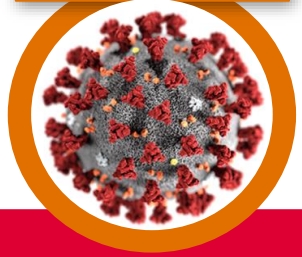
How long can the virus that causes COVID-19 (SARS-CoV-2) live on surfaces? (virus viability)

Capability of infection decreases over time

Detectable up to:

- 72-hours on plastics
- 48-hours on stainless-steel
- 24-hours on cardboard
- 4-hours on copper
- Detectable in the air for 3-hours





RISK EVALUATION FOR FOOD PROCESSING PLANTS

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 procedures Regularly revisit training to ensure compliance Maintain standard hygiene and sanitizing practices Assess and stock cleaning & sanitation products and materials Follow 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 Procedures Assess and mitigate risks posed by visitors to the facility Assess your preparedness status and collaborate with vendor partners on response readiness Develop preparedness procedures for heightened cleaning, sanitizing & disinfecting Evaluate facility usage, lead times, stock shelf life and impact on ordering supplies Increase 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 illness Implement heightened cleaning, sanitizing & disinfecting procedures Perform heightened cleaning, sanitizing & disinfecting procedures using approved products Plan for disinfection cleaning prior to down time or quarantine Execute reopening procedures after down time or quarantine

Increase frequency of cleaning and disinfection of high-touch surfaces

ECOLAB SANITATION PROGRAMS










Ecolab offers specific Cleaning & Disinfection programs for:

- Remediation, risk reduction and prevention of Covid-19
- Pre-shutdown considerations
- Full plant shutdown
- Plant re-start considerations
- CIP & COP protocols
- F&B Plant Office area considerations
- Managing risks to water systems



Consult your Ecolab Food & Beverage representatives for best practice procedures
Visit ecolab.com/coronavirus

▶ HARD SURFACE SANITIZING

APPLICATION	SOLUTION	PROPERTIES	DILUTION & SUPPORTED VIRUS
Hard Surface Antimicrobial	 DRYSAN OXY	Ready to use spray disinfectant with cleaning properties for manual use in the food and beverage industry. QAC and alcohol-free formulation. Kosher and Halal compliant.	Undiluted, 30 sec. Vacciniavirus, Bovine Viral Diarrhea Virus (BVDV) acc. to EN 14476
	 P3-OXYSAN ZS	Premium cold disinfectant with a working mechanism based on synergistic effects of mixed Peroxy compounds for application in beverage, dairy and food industries. Broad microbiological efficacy. Suitable for CIP, OPC & disinfection baths.	0.1%, 30 min. Adenovirus, Murine norovirus (acc. to EN 14476)
	 VORTEXX	Mixed peracid sanitizer that delivers superior antimicrobial activity on yeast, moulds and bacteria. Enhances finished product quality when used in a total Ecolab product and professional services program by reducing pathogenic organisms.	0.2% - 1.0% - 10 min Influenza B, Influenza A (H3N2), Influenza A (H1N1), Influenza A (H10N7), Reovirus
	 TOPAX 66	Liquid, alkaline cleaning and disinfecting agent with available chlorine for foam cleaning in the food industry and meat-fish and delicatessen industry. Reliable efficacy against microorganisms and moulds.	3.5%, 5 mins HCoV-229E, SARS-CoV acc. to ECDC guidelines
	 STER-BAC	Liquid quaternary ammonium chloride sanitizer for all food equipment filling and processing line applications in food and beverage industry. Effectively controls moulds and odors. Phosphate free formulation.	0.5%, 5 mins MHV-2, MHV-N, CCV acc. to ECDC guidelines
	 P3-ALCODES	Alcohol-based surface disinfectant for the food industry. Suitable for corrosion/water sensitive surfaces.	Undiluted, 5 min. HCoV-229E, SARS-CoV acc. to ECDC guidelines
	 XY-12	Liquid sodium hypochlorite solution, suitable for a wide range of hard surface sanitation applications. Exhibits effective broad-spectrum antimicrobial action and sanitization. Excellent removal of moulds.	2.2%, 5 mins HCoV-229E, SARS-CoV acc. to ECDC guidelines
	 P3-STERIL	Liquid, neutral cleaning and disinfecting agent for the Food & Beverage industry for manual cleaning of small parts and external surfaces. Contains quaternary ammonium chloride for effective control of microorganisms.	3%, 5-30 mins (clean to dirty conditions) MHV-2, MHV-N, CCV acc. to ECDC guidelines
	 P3-TSUNAMI 100	Liquid agent to reduce microbial growth in flume water of fruit and vegetable processing industries. Particularly effective against all types of microorganisms. Effective at low application concentration and low temperature.	0.1% -15 mins, 0.05% - 30 min efficacy against both non-enveloped and enveloped viruses, low level soiling, acc. to EN14675

*When using a disinfectant to fight COVID-19, make sure you select a product that meets the emerging pathogen guidelines in your local region, and use it at the use concentration and contact time specified for viricidal disinfection.

ABOUT THIS GUIDANCE

Dated 04/22/20: SARS CoV-2 is an emerging pathogen and the situation is 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

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