



# COVID19

## Exposure Control Plan

### For Mississauga Sportsplex

(updated: July 6, 2020)

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## 1. STATEMENT OF PURPOSE AND RESPONSIBILITIES

Canlan Ice Sports Corp. endeavors to provide a safe, healthy, and secure environment in which to carry on its business. All possible preventive measures are taken to eliminate accidental injuries, occupational diseases, and risks to personal security.

Compliance with the Workers' Compensation Act, OSHA, WHMIS and related legislation is the minimum standard acceptable in Canlan Ice Sports facilities.

In accordance with Occupational Health and Safety Regulations, Canlan has developed this COVID19 Exposure Control Plan, a health and safety program, which includes:

- a. Administrative controls
- b. Game format controls
- c. Personal protective equipment
- d. Engineered controls
- e. Training

### A. MANAGEMENT

It is the responsibility of Management acting through the facility General Managers to:

- a. Provide a safe, healthy, and secure working environment.
- b. Ensure regular inspections are made and action taken as required to improve unsafe conditions.
- c. Ensure that health, safety, and personal security considerations form an integral part of the design, construction, purchase and maintenance of all buildings, equipment, and work processes.
- d. Provide first aid facilities where appropriate.
- e. Support supervisors and safety committees in the implementation of an effective health, safety, and security programs.
- f. Ensure compliance with various regulatory bodies and other applicable legislation.
- g. Establish a facility safety committee
- h. Communicate with affected groups about events or situations when potentially harmful conditions arise or are discovered.
- i. Provide training to employees with respect to safety related items.
- j. Ensure proper records are kept with respect to the above items
- k. Ensure adequate resources are available to implement appropriate procedures.

### B. THE SUPERVISOR

It is the responsibility of supervisory staff to:

- a. Formulate specific safety rules and safe work procedures for their area of supervision.
- b. Ensure that all employees under their supervision are aware of safety practices and follow safety procedures.
- c. Provide training in the safe operation of equipment.
- d. Regularly inspect their areas for hazardous conditions.
- e. Be responsible to concerns expressed about personal security and investigate any accidents, incidents or personal security concerns which have occurred in their area of responsibility.

- f. Report any accidents or incidents involving personal security to the appropriate authority.
- g. Participate, if requested, on facility safety committees.
- h. Maintains a level of knowledge with respect to safety through ongoing personal learning and training initiatives.

### **C. INDIVIDUAL STAFF**

It is the responsibility of individual staff members to:

- a. Observe safety rules and procedures established by supervisory staff and facility General Managers.
- b. Be safety-conscious in all activities.
- c. Report as soon as possible any accident, injury, unsafe condition, insecure condition, or threats to personal security to a supervisor or General Manager.
- d. Properly use and care for all personal protective equipment provided by Canlan Ice Sports.
- e. Attend training in safety related matters and update work procedures as a result.
- f. Participate, if elected or appointed, on facility safety committees.

### **D. CUSTOMERS & ATHLETES**

It is the responsibility of customers and athletes to:

- a. Observe safety rules and procedures established by Canlan Ice Sports.
- b. Be safety-conscious in all activities inside and outside the facility.
- c. Report as soon as possible any unsafe condition to Canlan management.
- d. Properly use and care for all personal protective equipment provided by Canlan Ice Sports.

### **E. SAFETY COMMITTEES**

It is the responsibility of safety committee members to:

- a. Work to achieve the above objectives by providing education and reviewing policies and procedures.
- b. Carry out the safety programs within their areas and make recommendations to ensure that the safety objectives can be achieved.
- c. Comply with the appropriate governing legislation.

### **F. SAFETY ACTIVITY RECORDS (INSPECTIONS, MEETINGS, TRAINING)**

Part of maintaining a safe workplace is keeping records with respect to training activities. Positive, detailed records are integral to Canlan's risk management duties. Records must be maintained with respect to inspections (both agency inspections and Canlan inspections), meetings and training initiatives (at the individual level as well as the group level). Employee training will be delivered through Canlan's online training portal (Canlan College) and records retained of course completion electronically.

### **G. PROCEDURES FOR UPDATING THE EXPOSURE CONTROL PLAN**

This COVID19 Exposure Control Plan is meant to be a living document and must be reviewed and updated at a minimum on a regular scheduled basis to reflect the changes mandated by regulation and industry best practices. Each quarter, (congruent to Canlan's financial reporting interval), the Joint Health and Safety Committee of each facility in conjunction with a representative from Canlan's Enterprise Risk Management Committee (ERMC) will review this plan in its entirety and make updates. Any changes to

the document will be communicated to the workforce through memorandum. Any changes to training, policies, and procedures will be made in Canlan's online training portal.

## 2. COVID19 EXPOSURE

This section describes the hazards related to COVID19, the effects it has to humans, and the correct method of treatment to help mitigate health impacts.

### A. BACKGROUND

Coronaviruses are a large family of viruses. Some cause illness in people and others cause illness in animals. Human coronaviruses are common and are typically associated with mild illnesses, like the common cold.

Human coronaviruses cause infections of the nose, throat, and lungs. They are most commonly spread from an infected person through:

- a. respiratory droplets generated when you cough or sneeze
- b. close, prolonged personal contact, such as touching or shaking hands
- c. touching something with the virus on it, then touching your mouth, nose, or eyes before washing your hands

Current evidence suggests person-to-person spread is efficient when there is close contact.

COVID-19 is a new disease that has not been previously identified in humans. Rarely, animal coronaviruses can infect people, and more rarely, these can then spread from person to person through close contact.

### B. EXPOSURE EFFECTS

Those who are infected with COVID-19 may have little to no symptoms. You may not know you have symptoms of COVID-19 because they are like a cold or flu, including:

- a. cough
- b. fever
- c. difficulty breathing
- d. pneumonia in both lungs

In severe cases, infection can lead to death. Symptoms may take up to 14 days to appear after exposure to COVID-19. This is the longest known incubation period for this disease.

Recent evidence indicates that the virus can be transmitted to others from someone who is infected but not showing symptoms. This includes people who:

- a. have not yet developed symptoms (pre-symptomatic)
- b. never develop symptoms (asymptomatic)

While experts know that these kinds of transmissions are happening among those in close contact or in close physical settings, it is not known to what extent. This means it is extremely important to follow the proven preventative measures outlined in this plan.

### **C. VULNERABLE PERSONS**

There is an increased risk of more severe outcomes for those who are:

- a. aged 65 and over
- b. with compromised immune systems
- c. with underlying medical conditions

People who fall into these categories as vulnerable populations should not enter a Canlan facility.

Anyone demonstrating any of the symptoms related to COVID-19 (cough, fever or difficulty breathing), should not enter a Canlan facility either.

## **3. RISK IDENTIFICATION AND EXPOSURE TREATMENT**

Employees showing any of the symptoms of COVID19 must reduce contact with others by:

- a. Isolating yourself at home for 14 days to avoid spreading it to others
- b. If you live with others, stay in a separate room, or keep a 2-metre distance
- c. Visit a health care professional or call your local public health authority
- d. Call ahead to tell them your symptoms and follow their instructions

Isolation means staying at home when displaying the symptoms of COVID19. By avoiding contact with other people, the spread of disease to others in the community can be reduced. If an individual is observed to be displaying the symptoms of COVID19 in the workplace, any contact should be avoided by removing oneself from the immediate area. This should be reported to the immediate supervisor.

### Limit Contact

- a. Do not leave home unless it is to seek medical care
- b. Do not use public transportation (e.g. buses, taxis)
- c. Arrange to have groceries and supplies dropped off at your door to minimize contact
- d. Stay in a separate room and use a separate bathroom from others in your home, if possible
- e. If you must be in contact with others, practice physical distancing and keep at least 2 meters between yourself and the other person.
- f. Avoid contact with individuals with chronic conditions, compromised immune systems and older adults.
- g. Keep any interactions brief and wear a medical mask if available, or if not available, a non-medical mask or facial covering
- h. Avoid contact with animals, as there have been several reports of people transmitting COVID-19 to their pets.

### Wash Hands

- a. Wash your hands every 30 minutes with soap and water for at least 20 seconds, and dry with disposable paper towels or dry reusable towel, replacing it when it becomes wet.
- b. Wash your hands immediately after touching a surface, using hand tools, or using equipment that any other employee may have also used previously.

- c. You can also remove dirt with a wet wipe and then use an alcohol-based hand sanitizer.
- d. Avoid touching your eyes, nose, and mouth.
- e. Cough or sneeze into the bend of your arm or into a tissue.

#### Avoid Contaminating Items & Surfaces

- a. At least once daily, clean and disinfect surfaces that you touch often, like toilets, bedside tables, doorknobs, phones, and television remotes.
- b. Do not share personal items with others, such as toothbrushes, towels, bed linen, utensils, or electronic devices.
- c. To disinfect, use only disinfectants that have a Drug Identification Number (DIN). A DIN is an 8-digit number given by Health Canada that confirms the disinfectant product is approved and safe for use in Canada.
- d. Place contaminated items that cannot be cleaned in a lined container, secure the contents, and dispose of them with other household waste.
- e. Put the lid of the toilet down before flushing.
- f. Wearing a face mask, including a non-medical mask or facial covering (i.e., constructed to completely cover the nose and mouth without gaping, and secured to the head by ties or ear loops), may trap respiratory droplets and stop them from contaminating surfaces around you - but wearing a mask does not reduce the need for cleaning.

#### Hygiene

Proper hygiene can help reduce the risk of infection or spreading infection to others:

- a. Wash your hands every 30 minutes with soap and water for at least 20 seconds, especially after using the washroom and when preparing food. Use alcohol-based hand sanitizer if soap and water are not available.
- b. When coughing or sneezing:
  - a. cough or sneeze into a tissue or the bend of your arm, not your hand
  - b. dispose of any tissues you have used as soon as possible in a lined waste basket and wash your hands afterwards
- c. Avoid touching your eyes, nose, or mouth with unwashed hands

#### Cleaning

Coronaviruses are one of the easiest types of viruses to kill with the appropriate disinfectant product when used according to the label directions.

Although they do not claim to kill COVID-19, cleaners can play a role in limiting the transfer of microorganisms. Health Canada recommends cleaning high-touch hard surfaces often, using a disinfectant according to the label directions. These surfaces include:

- a. Toilets
- b. Phones
- c. Electronics
- d. Door handles
- e. Bedside tables
- f. Television remotes

- g. Hand tools
- h. Equipment, including Zamboni controls

Discarding Used PPE, Trash, Other Items

Previously used PPE such as gloves and disposable masks, as well as any other items intended to be discarded must be done in a manner that ensures surfaces that could potentially have the virus are not touched by an employee. Employees should wear disposable gloves when handling such items and once the work assignment has finished, the employee should wash hands thoroughly and apply hand sanitizer.

**A. MONITORING THE WORKPLACE**

Upon returning to work from layoff or upon hiring (new employee), the health status of all employees will be screened by their immediate supervisor to identify any underlying vulnerabilities related to COVID19 using a declaration checklist. Refer to Appendix A – Employee Protocol and Commitment to Safety for details. This form will be kept in the employee’s personnel file. In the event the screening of an employee reveals one or more vulnerabilities, the employee will not be allowed to enter the workforce.

Daily, all employees at the start of their shift will complete a self-screening checklist for COVID19-related vulnerabilities. Refer to Appendix B – Fit to Work Questionnaire for details. This form will be submitted to the immediate supervisor prior to commencing work activities and kept in a separate, secure file and shredded after 21 days. In the event the screening of an employee reveals one or more vulnerabilities, the employee will not be allowed to enter the workforce.

Anyone intending to enter a Canlan facility will be pre-screened for COVID19-related vulnerabilities. Refer to Appendix C – Visitor Questionnaire for details. In the event the screening of a visitor reveals one or more vulnerabilities, the visitor will not be allowed to enter the building and will be requested to leave the premise immediately.

**4. COVID19 EXPOSURE CONTROL**

This section outlines Canlan’s system to minimizing the risks associated with having its employees, contractors, and visitors unexpectedly exposed to COVID19. Canlan’s exposure control system is comprised of the following attributes:

- a. Administrative controls
- b. Game/practice format controls
- c. Use of personal protective equipment
- d. Engineered controls
- e. Training

Protection Condition

Because Canlan operates in facilities located in different regions, each facility is subject to different rules, regulations, and guidelines put forth by public health officials and governing bodies which change over time as seen fit by these officials. With this in mind, Canlan has developed a system to determine the level

of required personal protection that correlates with the regulatory requirements and guidelines within each region it operates.

Protection Level	Description
<b>RED</b>	Restrictions require use of full-face shields for game play.
<b>YELLOW</b>	Restrictions require physical distancing during games. Full-face shields are recommended but not mandatory.
<b>GREEN</b>	No restrictions for game play and no physical distancing required during games. Full-face shields are not recommended nor are they required.

Canlan’s Enterprise Risk Management Committee (ERMC) will review regional regulations and guidelines on a daily basis and make adjustments to the Protection Condition in each region. Adjustments to the Protection Condition will be communicated to athletes of Canlan’s various leagues via email and enforced by the management team in each facility.

**A. ADMINISTRATIVE CONTROLS**

Administrative controls are the policies and procedures developed for off playing surface activities. These controls include:

- a. Canlan COVID19 Safety Policy – Refer to Appendix D
- b. Canlan COVID19 Safety Procedure – Refer to Appendix E
- c. Canlan Disinfecting Procedure – Refer to Appendix F
- d. Canlan Physical Distancing Procedure – Refer to Appendix G

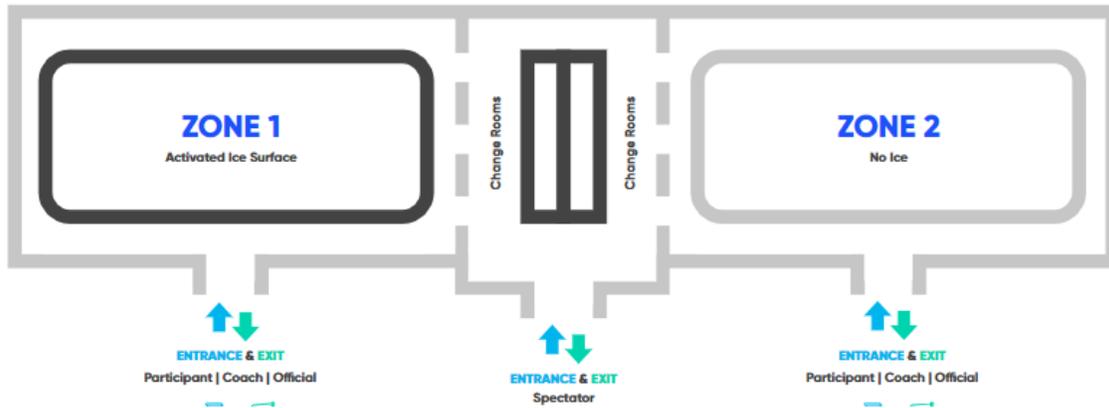
**B. GAME/PRACTICE FORMAT CONTROLS**

Once public health officials approve returning to play games, game format controls are modifications made to the standard rules which games are played under in most sport facilities in North America. To maximize physical distancing and limit the occupancy levels in facilities, Canlan has developed a game formats that reduce the number of participants on a surface. It also limits participant / coach numbers for practices. Physical distancing while on a playing surface is facilitated by modifying rules such as:

- a. No face-offs/tip offs/kick-offs to start/restart game play
- b. Throw-ins in soccer eliminated and replaced by an indirect kick-in.
- c. Penalties served through penalty shots
- d. Penalties established for deliberate or negligent play causing body contact
- e. Undefended fouls shots. Ball is turned over to the defensive team on a miss or a made shot.

Facility Zones

Use of changerooms will be prohibited to ensure physical distancing can be maintained. Athletes must come dressed for play.



Each playing surface and the viewing areas will be managed as separate zones with no zone exceeding current gathering size limits defined by local public health officials. Athletes will be moved in and out of the facility through dedicated entrances and same will be true for spectators with their own dedicated entrances.

Game Situation – Playing Zone Occupancy (subject to local public health official limits)

Team 1 players	9
Team 2 players	9
Coaches	4
Referee	1
Safety Ambassador	1
Janitor	1
<b>Total Zone Occupancy</b>	<b>25</b>

Practice Situation – Playing Zone Occupancy

Team Players	10
Coaches	2
Safety Ambassador	1
Janitor	2
<b>Total Zone Occupancy</b>	<b>15</b>

Viewing Area Zone

The viewing areas within Canlan facilities can be found around the perimeter of the playing surface or the mezzanine level overlooking the surfaces. As part of this game and practice format, athletes will only be permitted to have one spectator (normally a parent) in attendance to watch them play or practice. The restaurant and bar areas will be closed under this game and practice format; however, the concession will continue to operate on a takeout basis only. This operation will be staffed with a supervisor, cashier, runner, and one cook.

Viewing Zone Maximum Occupancy

Home Team Parents	9
Visitor Team Parents	9
<b>Total Zone Occupancy</b>	<b>18</b>

Food & Beverage Zone Maximum Occupancy (if applicable and all orders via on-line for takeout; pick-up curbside)

Supervisor	1
Cook	1
Cashier	1
Runner	1
<b>Total Zone Occupancy</b>	<b>4</b>

Contract Users

Contract Users will be required to submit a practice/drill summary to the facility management. This summary must show which drills will be utilized and how physical distancing will be enforced throughout the entire session. Summaries not demonstrating physical distancing of participants will result in the playing surface contracts being terminated or put on hold until a proper summary has been provided.

Canlan Programming

All Canlan programs will be developed and executed with physical distancing measures incorporated into the curriculum. The management of the facility will review each program (camps or academies) and monitor regularly as the program is being executed to ensure compliance.

**C. PERSONAL PROTECTIVE EQUIPMENT**

Personal protective equipment is to be used by employees, customers, athletes, and visitors entering the facility as outlined in the COVID19 Safety Policy and Standard Operating Procedures. This section outlines the approved PPE to be used at Canlan facilities.

Game Protection

Although the game format controls will significantly reduce the amount of close contact between participants, Canlan is recommending all athletes wear at least one layer of face protection while participating in a game.

For Ball or In-Line Hockey one of the following must be worn -

- a. Full acrylic face shield + non-medical cloth face mask
- b. Full acrylic face shield only
- c. Full cage + non-medical cloth face mask
- d. Acrylic half visor + non-medical cloth face mask

Refer to Appendix H – Hockey Face Shields for specifications.

### Non-Medical Face Masks

Canlan employees are issued with non-medical face masks which must be laundered after each shift to allow for reuse without contamination. Refer to Appendix I – Non-Medical Face Masks for specifications of the masks supplied to Canlan employees.

All employees wearing these masks should ensure the masks achieve the following:

- a. allow for easy breathing
- b. fit securely to the head with ties or ear loops
- c. maintain their shape after washing and drying
- d. be changed as soon as possible if damp or dirty
- e. be comfortable and not require frequent adjustment
- f. be large enough to cover the nose and mouth completely and comfortably without gaping

If any of these attributes are not achieved, the employee should bring this to the attention of his/her immediate supervisor for resolution.

### Gloves

Disposable latex gloves are required to be worn by maintenance and janitorial staff while working in all areas of the building that are frequented by other employees, customers, and visitors. Refer to Appendix J – Disposable Latex Gloves for specifications of the gloves supplied to Canlan employees. After use, these gloves should be discarded in the appropriate garbage receptacle and the employee should immediately wash hands and apply hand sanitizer.

### Face Shields

All Canlan employees who regularly interface with customers and athletes are required to wear face shields when not behind an installed sneeze shield on a countertop. Employees who are required to wear a face shield include janitors, servers, safety ambassadors, and convenors. Refer to Appendix K – Face Shields for specifications. Prior to use, the employee should clean the face shield with soap and water and then immediately wash hands and apply hand sanitizer.

## **D. ENGINEERED CONTROLS**

Canlan's use of engineered exposure controls include the products it uses for disinfecting, mechanical equipment, and providing barriers between customers and its employees.

### Disinfectants

Different areas of each facility are disinfected throughout the day by the maintenance and janitorial staff. These disinfectants are approved by Health Canada and are safe for use in Canlan facilities. In addition to this, dispensers for disinfectant wipes have been installed outside change rooms which players may use to disinfect contact areas. Refer to Appendix L – Approved Disinfectants for details.

### Hand Sanitizer

Hand sanitizing dispensers are in multiple areas of each facility and outside change rooms. The hand sanitizer is approved by Health Canada and authorized for use in commercial facilities. Refer to Appendix M – Hand Sanitizer for details.

### Mechanical Systems

Each Canlan facility is equipped with multiple air handling units that provide conditioned air into the facility. These units provide heating, cooling, and dehumidification. Confined spaces such as change rooms are serviced by dedicated make-up air units which provide 100% air exchange and therefore do not recirculate the air. This is mandatory under the National Building Code of Canada.

Other areas that are not confined spaces recirculate some of the air within the facility as an energy conservation measure. For these units, MERV 13 high efficiency filters have been installed to remove particles as small as .3 microns with 75% efficiency. Refer to Appendix N – MERV Filters for details.

### Sneeze Shields

Workstations that are staffed with Canlan personnel who interact with customers, have been outfitted with plexiglass transparent shields. These shields act as physical barriers between customers and employees. Workstations that now have these shields include:

- a. Concession cashier
- b. Front office reception
- c. Registration tables
- d. Public skate counter
- e. Sports store cashier

Refer to Appendix O – Sneeze Shields for details.

## **E. TRAINING**

Canlan utilizes mandatory training programs to ensure employees are properly trained to prevent and handle emergency situations. Training on the hazards and effects of COVID19 will be performed by the employer or the employer's designate. Records of attendance, dates of training and training material will be documented and retained. Additional training or reference material on COVID19 will be made available to employees upon request.

### Employee Training at Time of Hire

At the time of hire, employees are responsible to read and sign off on having read the COVID19 Exposure Control Plan. Local health and safety regulations for understanding safe work conditions and procedures for reporting unsafe work conditions are reviewed with the employee by the hiring supervisor. During new hire orientation, using Canlan College online modules, workers also receive training on the following COVID19-related topics:

- a. Canlan's COVID19 Safety Policy
- b. Canlan's COVID19 Standard Operating Procedure
- c. The risk of exposure to COVID19 and the signs and symptoms of exposure
- d. Correct use and maintenance of personal protective equipment
- e. Canlan's Disinfecting Procedure
- f. Canlan's Physical Distancing Procedure
- g. Canlan's Harassment & Hostile Behaviors Policy
- h. Canlan's Violence in the Workplace Procedure

### Ongoing Employee Training

Canlan's COVID19 Exposure Control plan and all related policies and procedures are reviewed with workers annually and tracked using Canlan College. Workers are required to take a competency test with the results recorded on their personnel file. All employees will be retrained annually on the importance of reporting to their supervisor if they feel sick and the requirement to stay home if they feel sick, display the symptoms of COVID19, or identify any vulnerabilities to COVID19 through the self-screening and declaration questionnaires.

### Customer Training

At the time of registration, this Exposure Control Plan will be made available to all customers which includes Canlan's COVID19 Safety Policy and COVID19 Standard Operating Procedures. Customers will be required to review these documents and sign-off that they understand and will abide by them.

All Canlan facilities will be outfitted with high visibility signage outlining the operating rules, wayfinding, zones, physical distancing demarcation, hygiene procedures, and occupancy limits related to COVID19.

A Safety Ambassador will be stationed in each Zone of the building and provide on-going training to customers as they enter facilities and partake in activities. Safety Ambassadors will also oversee compliance to Canlan's policies, procedures, and operating rules for COVID19 safety.

## **5. REPORTING, INVESTIGATING, CONTACT TRACING**

In the event an employee has tested positive for COVID19, they must remain at home and report this to their immediate supervisor. The supervisor will determine the employee's last day of work and interaction with other employees, customers, and visitors to the facility. The supervisor will make a list of all known and potential contacts who may have interacted with the employee using attendance records, employee sign-in sheets, game sheets, and visitor sign-in sheets. The employee will remain at home until authorized by the supervisor to return to work which will require a physician's approval, as outlined in Canlan's COVID19 Standard Operating Procedure.

### Reporting

In the event an employee tests positive for COVID-19 due to exposure at the workplace, or that a claim has been filed with the Workplace Safety and Insurance Board (WSIB), Canlan will give notice in writing within four days to:

1. the Ministry of Labour, Training, and Skills Development
2. the Joint Health and Safety Committee or a health and safety representative
3. the employee's trade union (if applicable)
4. the public health authority for the region where the facility is located

Additionally, Canlan will report any occupationally acquired illnesses to the WSIB within three days of receiving notification of the illness.

### Disclosure

The contact information for those employees, customer, and visitors who may have become infected to COVID19 from interactions with the infected employee will be made available to public health officials upon their request.

### Additional Infections

In the event more employees come forward who have tested positive for COVID19 at the same facility, the General Manager will report this to the facility's Joint Health and Safety Committee chair and Canlan's Enterprise Risk Management Committee, as well forward an investigation report to the local regulatory body responsible for workplace safety.

## **6. RESTARTING OPERATIONS**

Safe restarting of business operations after a prolonged shutdown requires refresher training of employees on various standard operating procedures (SOPs) that are found on Canlan's Quality Management System by accessing the following internal link:

<https://canlansports.sharepoint.com/operations/Quality%20Management%20System/Forms/AllItems.aspx>

### Quality Management System

- a. Administrative
- b. Arena
- c. Change Rooms
- d. Floor Cleaning
- e. Building
- f. Health and Safety
- g. Life Safety Systems
- h. Mechanical Systems
- i. Refrigeration Plant
- j. Roof & Exterior
- k. Site
- l. Mobile Equipment
- m. Building Controls
- n. Environmental
- o. Facility Inspections (OSVs)
- p. Product Specifications
- q. Energy Management
- r. Asset Management
- s. Training

## Appendix A – Employee Protocol and Commitment to Safety Declaration



As an employee of Canlan, I will adhere to the noted company policies and protocols as outlined by my employer to ensure the safety of myself, my colleagues, my employer, and our guests.

### I agree to the following:

- I will not come in to work if I have or have had in the last 10 days symptoms of COVID-19 and will instead self-isolate if I have any of the symptoms (symptoms include: chills, new or worsening cough, shortness of breath, sore throat, and new muscle aches or headache).
- If I start to have symptoms of COVID-19 while on shift I will immediately advise my supervisor and make necessary arrangements to go home to self-isolate.
- I will abide by the company protocols on social distancing among staff, guests, and members of the public and will maintain a distance of two meters as much as possible while still being able to do my job efficiently and effectively.
- I will abide by the company protocol regarding handwashing and sanitizing my hands frequently
- I will abide by the company protocol for cleaning of our space to ensure safety of all staff, guests, and myself.
- I will advise my dedicated supervisor of any safety concerns I may have. This will help to ensure safety and confidence among my teammates, my employer, our guests, and myself.
- I will not come to work if directed by Public Health to self-isolate.

Before Each Shift, I commit to the company check which includes:

- Not having symptoms of COVID-19.
- I have not been in contact with someone who has COVID-19.
- I am not currently required to self-isolate.
- I have not been outside of my home Province or State in the last 14 days.

*Failure to report a known illness or exposure to COVID-19 will be grounds for termination.*

I acknowledge that I have read this condition of employment and I agree that I will inform my supervisor or manager, before starting any shift, if any of these factors apply to me.

Employee Name: \_\_\_\_\_

Facility & Department: \_\_\_\_\_

Employee Signature \_\_\_\_\_ Date \_\_\_\_\_

## Appendix B – Employee Fit to Work Questionnaire



We require you to fill out the below questionnaire to assist in determining your fitness to work. The information in this questionnaire is collected and will be used for the purposes of determining fitness for work or visitation during the COVID -19 pandemic.

Always ensure you are following Canlan’s COVID – 19 protocols. The questionnaire intends to identify new symptoms or worsening symptoms that are related to allergies, chronic or pre-existing conditions. Those with symptoms related to pre-existing conditions or allergies can still go to work. Disclosure of the pre-existing condition is required.

<i>Printed Name:</i>	<i>Signature:</i>	<i>Date:</i>

### Risk Assessment: Screening Questions:

	<i>Please check</i>	✓	✓
1. Are you sick with a cold or flu or are you displaying any signs of COVID19 and/or flu-like symptoms?	YES		NO
2. Do you have any of the following symptoms which are new or worsened if associated with allergies, chronic or pre-existing conditions: fever, cough, shortness of breath, difficulty breathing, sore throat, and/or runny nose?	YES		NO
3. Have you returned from outside the country (including Canada to USA and vice versa) in the past 14 days?	YES		NO
4. In the past 14 days, at work or elsewhere, did you have close contact with someone who has a probable or confirmed case of COVID19?	YES		NO
5. In the past 14 days, at work or elsewhere, did you have close contact with a person who had acute respiratory illness that started within 14 days of their close contact to someone with a probable or confirmed case of COVID-19?	YES		NO
6. In the past 14 days, at work or elsewhere, did you have close contact with a person who had acute respiratory illness who returned from travel outside of the country in the 14 days before they became sick?	YES		NO
7. In the past 14 days have you been directed by Public Health to self-isolate?	YES		NO

If you answer “YES” to any of the questions, you are **not permitted to attend work**. If you answer “NO” to all the above, you can proceed to work. If you develop symptoms, please complete a new questionnaire, and advise your manager.

## Appendix C – Visitor Questionnaire



<i>Printed Name:</i>	<i>Nature of Visit:</i>	<i>Date:</i>

### Risk Assessment: Screening Questions:

		<i>Please check</i>		✓	✓
1.	Are you sick with a cold or flu or are you displaying any signs of COVID19 and/or flu-like symptoms?	YES		NO	
2.	Do you have any of the following symptoms which are new or worsened if associated with allergies, chronic or pre-existing conditions: fever, cough, shortness of breath, difficulty breathing, sore throat, and/or runny nose?	YES		NO	
3.	Have you returned from outside the country (including Canada / USA) in the past 14 days?	YES		NO	
4.	In the past 14 days, at work or elsewhere, did you have close contact with someone who has a probable or confirmed case of COVID19?	YES		NO	
5.	In the past 14 days, at work or elsewhere, did you have close contact with a person who had acute respiratory illness that started within 14 days of their close contact to someone with a probable or confirmed case of COVID-19?	YES		NO	
6.	In the past 14 days, at work or elsewhere, did you have close contact with a person who had acute respiratory illness who returned from travel outside of the country in the 14 days before they became sick?	YES		NO	
7.	In the past 14 days have you been directed by Public Health to self-isolate?	YES		NO	

Please share your completed questionnaire with the screener. If you answer “YES” to any of the above, you are **not permitted to enter the facility**. If you answer “NO” to all the above, you can enter the facility when instructed to do so.

## Appendix D - COVID19 Safety Policy

	<b>CANLAN ICE SPORTS CORP.</b>		<b>POLICY STATEMENT</b>		
	Applies to:		ALL LOCATIONS, Canada		
	Date Last Approved:		June 5, 2020		
	Approvals:		Management Committee		
<b>SUBJECT:</b>	<b>COVID 19 Safety Policy</b>				

### PURPOSE

Canlan endeavors to provide a safe, healthy, and secure environment in which to carry on its business. All possible preventive measures are taken to eliminate accidental injuries, occupational diseases, and risks to personal security.

Our goal is to minimize the health risk of COVID19 to employees, customers, and visitors of Canlan facilities by reducing exposure to the virus through adherence to strict protocols and physical barriers. COVID19 is a novel virus and as such has many properties and characteristics that are unknown by public health officials. This policy has been developed with an intention on minimizing health risk based on the information available to Canlan’s management.

### APPLICATION

#### CANLAN EMPLOYEES

Employee safety will be guided by standard operating procedures (SOP’s) and processes developed. As these SOP’s will be modified through time, ongoing updates will be provided.

SOP’s will identify personal protective equipment (gloves, masks, etc.), physical distancing, cleanliness & hand hygiene, and any other protocols developed by health authorities and / or industry experts.

Canlan will ensure all employees are informed and trained on these SOP’s.

#### CUSTOMERS

Customer safety will be guided by standard operating procedures (SOP’s) and processes developed. As these SOP’s will modify through time, ongoing updates will be provided.

SOP’s will identify protective equipment (gloves, masks, etc.), physical distancing guidelines, facility cleanliness & hand hygiene requirements (hand sanitizers, etc.), and any other protocols developed by health authorities and / or industry experts.

Canlan will ensure customers are informed of these SOP's through our marketing channels, signage (facility & website) and in-person contact with our employees.

#### CONTRACTORS, VISITORS AND OR VENDORS

Contractor, visitor, and vendor safety will be guided by standard operating procedures (SOP's) and processes developed. As these SOP's will modify through time, ongoing updates will be provided.

SOP's will identify protective equipment (gloves, masks, etc.), physical distancing guidelines, facility cleanliness & hand hygiene requirements (hand sanitizers, etc.), and any other protocols developed by health authorities and / or industry experts.

Canlan will ensure contractors and vendors are informed of these SOP's through our email channels, signage (facility & website) and in-person contact with our managers & employees.

#### TENANTS

Building tenants are an important revenue stream for Canlan however they must also comply with Canlan's safety protocols even if their rented space is segregated from the rest of the facility and has a separate entrance. Stopping the spread of the virus is the responsibility of all occupants of the building.

Tenant safety will be guided by standard operating procedures (SOP's) and processes developed. As these SOP's will modify through time, ongoing updates will be provided.

SOP's will identify protective equipment (gloves, masks, etc.), physical distancing guidelines, facility cleanliness & hand hygiene requirements (hand sanitizers, etc.), and any other protocols developed by health authorities and / or industry experts.

Canlan will also be cognizant of possible protocols related to the industry the tenant is part of. Example: Physiotherapy, Daycare, etc.

Canlan will ensure tenants are informed of these SOP's through our facility General Managers.

#### CONTACT TRACING – FACILITY LEVEL

1. In the event an employee reports that he/she has tested positive for COVID19, the General Manager of the facility will immediately notify Canlan's Enterprise Risk Management Committee.
2. The General Manager will trace all other employees, contractors, and visitors that the employee came in contact with over the previous 14 days.
3. The General Manager will notify all personnel, at the direction of the ERMC, that the employee may have been in contact with and possibly infected. Those employees will be directed to begin self-isolation for 14 days. After the self-isolation period is over, personnel will be required to complete the Fit to Work Questionnaire before returning to work if no vulnerabilities identified.

CONTACT TRACING – ENTERPRISE RISK MANAGEMENT COMMITTEE

1. Upon being notified of an employee testing positive for COVID19, the ERMC will immediately convene and develop a communication plan that may involve employees, customers, and other visitors to the facility.
2. The ERMC will stay in direct contact with the facility's General Manager and seek regular reports on the status of the infected employee and all others who have been contact traced.
3. The Chief Risk Officer will provide regular updates to Canlan's Board of Directors.
4. In the event other employees, customers, or visitors have been found to test positive for the virus, the facility may cease operations. All areas of the facility will be disinfected, and all employees will be monitored for a period of 14 days.
5. After the 14-day period has expired the ERMC in conjunction with the Board of Directors will decide if the facility should be reopened.

## Appendix E - COVID19 Standard Operating Procedures

### COVID19 Standard Operating Procedures As at: June 5, 2020

---

#### General Procedures

The purpose of these procedures is to minimize the health risk of COVID19 to customers, employees, tenants, and visitors of Canlan facilities by reducing exposure to the virus through operating protocols and physical barriers. These procedures have been developed based on information from local public health authorities as well as requirements/policies issued by governments at all levels.

#### Canlan Employees

1. Upon hire or return to work from layoff, Canlan employees will be required to sign-off the Protocol and Commitment to Safety declaration.
2. Daily prior to commencing work, each Canlan employee will be required to complete the Fit to Work Questionnaire.
3. Canlan employees are required to wear face masks while working inside a facility including offices, multisport spaces, restaurants, and maintenance areas when physical distancing is not 100% achievable at all times.
4. Canlan employees must follow physical distancing protocols at all times (inclusive of coffee and lunch breaks) by staying at least 6' (2 meters) apart from other employees, customers, and visitors.
5. Canlan employees must wash hands every 30 minutes and apply hand sanitizer. Supervisors will allow adequate time in work assignments and schedules to allow employees adequate time to carry-out this requirement.
6. Canlan employees who are required to administer First-Aid as part of their regular duties must wear disposable gloves, face shield, and a face mask at all times. Additionally, the patient receiving First-Aid, must always wear a face mask as well. The Occupational First Aid Attendants (OFFA) guide for pandemics will be followed at all times:  
<https://www.worksafebc.com/en/resources/health-safety/information-sheets/ofaa-protocols-covid-19-pandemic?lang=en>
7. Upon entering a facility, employees should proceed to the nearest public washroom and thoroughly wash hands and apply hand sanitizer. In the event an employee leaves a facility, even for a short period of time, the employee must follow this procedure upon reentering the facility.
8. All salaried employees must sign-in to a logbook at the commencement of their shift. The clock-in/out procedure for hourly employees meets this requirement. This is to assist public health officials with contact tracing in the event of an outbreak.
9. In the event an employee feels sick, displays the symptoms of COVID19, or identifies vulnerabilities to COVID19 through the self-screening and declaration questionnaires, the employee must stay home and call their supervisor with an update.

10. Employees are required to report to their supervisor any suspected occurrences of illness within the workplace.
11. No employee will be disciplined for missing work due to COVID19 or preventing the spread by not coming to work when sick.
12. No employee will be disciplined for refusing to carryout assigned work due to fear of becoming infected from COVID19.
13. In the event an employee is uncomfortable of carrying-out a work assignment due to fear of becoming infected from COVID19, the employee should notify their immediate supervisor, General Manager, or the chair of the facility's Joint Health and Safety Committee.
14. If an employee tests positive for COVID-19 due to exposure at the workplace, or that a claim has been filed with the Workplace Safety and Insurance Board (WSIB), Canlan will give notice in writing within four days to:
  1. the Ministry of Labour, Training, and Skills Development
  2. the Joint Health and Safety Committee or a health and safety representative
  3. the employee's trade union (if applicable)
  4. the public health authority for the region where the facility is located
15. Canlan will report any occupationally acquired illnesses to the WSIB within three days of receiving notification of the illness.

#### Customers & Athletes

1. Athletes who are participating in competitive games may be required to wear a full-face shield depending on the Protection Condition Level established by Canlan's Enterprise Risks Management Committee.
2. Athletes who are not participating in a competitive game but are partaking in activities are not required to wear COVID19 personal protective equipment while practicing on the turf/court.
3. Customers are to follow physical distancing protocols at all times by staying at least 6' (2 meters) apart from Canlan employees and other customers and visitors.
4. Customers are to apply hand sanitizer and ideally wash hands immediately upon entering a facility.
5. The total occupancy within a Canlan facility may be restricted by public health policy which means that some customers or spectators may not be permitted to enter a facility.
6. Customers and athletes who are deemed as "vulnerable persons" to COVID19, as defined by Health Canada or the Centers for Disease Control CDC, should not enter a Canlan facility.
  - a. [Health Canada](#)
  - b. [CDC \(USA\)](#)
7. Customers who are not following these safety protocols will be given the opportunity to comply if they are able to do so. In the event a customer chooses not to comply or is unable to do so, the customer will be asked to leave the premise.
8. All Canlan facilities are restricted to customers and athletes with a birth year of 2010 or older.

### Contractors & Visitors

1. All Contractors hired to work inside a Canlan facility, and all visitors are required to formally sign-in at the front office. This is to assist public health officials with contact tracing in the event of an outbreak.
2. All Contractors and visitors entering a Canlan facility are required to complete the “Visitor Questionnaire” that is used for screening employees.
3. Upon entering a facility, contractors and visitors should proceed to the nearest public washrooms and thoroughly wash hands and apply hand sanitizer. In the event a contractor or visitor leaves a facility, even for a short period of time, the individual must follow this procedure upon reentering the facility.
4. The total occupancy within a Canlan facility may be restricted by public health policy which means that some contractors or visitors may not be able to enter a facility. Therefore, contractors and visitors should make appointments before coming to the facility.
5. Contractors or visitors that are not following these safety protocols will be given the opportunity to comply. In the event a contractor or visitor chooses not to comply, they will be asked to leave the premise.

### Tenants

Tenants are required to follow Canlan’s COVID19 safety protocols even if their rented space is segregated from the rest of the facility and has a separate entrance. Stopping the spread of the virus is the responsibility of all occupants of the building. Tenants are required to follow the guidelines, policies, and regulations established by Federal, regional, and local government authorities, Public Health Agencies, and agencies overseeing worker protection. Tenants must provide Canlan with a copy of their COVID19 exposure control plans and demonstrate how they will follow their own documented controls, regulations and guidelines established by officials and agencies in the region they operate.

The following procedures should be implemented by the management of Canlan’s tenants:

1. Employees are to follow physical distancing protocols at all times (including lunch and coffee breaks) by staying at least 6’ (2 meters) apart from other employees, customers, and visitors.
2. Employees should proceed to the nearest public washrooms and thoroughly wash hands and apply hand sanitizer. In the event an employee leaves a facility, even for a short period of time, the employee must follow this procedure upon reentering the facility.
3. Employees must sign-in to a logbook to assist public health officials with contact tracing in the event of an outbreak.
4. Where possible, tenants should maintain a logbook of customer and visitor attendance.
5. In the event an employee feels sick or displays the symptoms of COVID19, the employee must stay home and call supervisor with an update. The tenant must immediately notify the General Manager of the facility.

## **Appendix F – Disinfecting Procedure**

## COVID19 Disinfecting Procedures As at: June 5, 2020

### General Procedures

The purpose of this procedure is to minimize the health risk of COVID19 to customers, employees, tenants, and visitors of Canlan facilities by reducing exposure to the virus through disinfection of touch points and high traffic areas. These procedures have been developed based on information from local public health authorities as well as requirements/policies issued by governments at all levels.

Area	Frequency	Product
Handrails, door push bars, water fill stations: Entire building	1. Hourly	Virox or Oxivir, microfiber rags
Public washroom counters, sinks, faucets, paper dispensers	1. Hourly	Virox or Oxivir, microfiber rags
Employee washroom counters, sinks, faucets, paper dispensers	1. Hourly	Virox or Oxivir, microfiber rags
Turf groomer driver controls	1. Before each use	Virox or Oxivir, microfiber rags
Hand tools and equipment	1. Before each use	Virox or Oxivir, microfiber rags
F&B tables, chairs, counters	1. Hourly and after each use	Virox or Oxivir, microfiber rags
Sports store counter & merchandise	1. Hourly and after each use	Virox or Oxivir, microfiber rags
Players benches, penalty box, timekeeper box	At end of each game or rental and at end of each night: 1. Sprayed with Virox or Oxivir 2. Wiped down	Virox or Oxivir, microfiber rags, pump sprayer
Changeroom benches, floor, lower walls	At end of each game or rental and at end of night 1. Sprayed with Virox or Oxivir 2. Wiped down	Virox or Oxivir, microfiber rags, pump sprayer
Sport Court	At end of each game or rental and at end of night: 1. Sprayed with Virox or Oxivir 2. Wiped down or use auto scrubber	Virox or Oxivir, microfiber rags, pump sprayer
Turf	Weekly: 1. Sprayed with mPerial	mPerial Disinfectant, pump sprayer

Virox and Oxivir are supplied by Diversey and are the only approved disinfectants to be used in Canlan facilities.

This disinfecting activity is in addition to the regular cleaning duties already in place at each facility and is not meant to be a substitute for the efforts already taking place to keep our buildings clean.

## Appendix G – Physical Distancing Procedure

### COVID19 Physical Distancing Procedure As at: June 5, 2020

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#### **General Procedures**

The purpose of this procedure is to minimize the health risk of COVID19 to customers, employees, tenants, and visitors of Canlan facilities by reducing exposure to the virus through physical distancing of occupants and limiting the occupancy levels within each facility to the maximum allowable under public health restrictions in each region. These procedures have been developed based on information from local public health authorities as well as requirements/policies issued by governments at all levels.

#### Building Occupancy

1. Total headcount within each facility is to be tracked on an ongoing basis while in operation.
  - The number of occupants leaving and entering predetermined zones within the facilities will be tracked to ensure that the total occupancy does not exceed the maximum allowable number of people per zone
2. A Zone Control Attendant will be deployed to each entrance/exit to control the flow of occupants in and out of a zone. The Zone Control Attendant will have the authority to prevent visitors from entering the facility when total headcount has reached the maximum allowable.
3. Athletes will be restricted from entering the facility until 20 minutes before game time.
4. Customers will be restricted from entering the facility until 10 minutes before their scheduled time.
5. Athletes will be mandated to leave the facility within 15 minutes after game activities have ceased.
6. Customers will be mandated to leave the facility immediately after the activity has ceased.

#### Physical Distancing

1. All building occupants will remain 6' (2 meters) apart from each other at all times. This includes but not limited to:
  - Playing surfaces
  - Entrance into the facility
  - Restaurant and concession
  - Viewing areas
  - Multisport spaces
  - Public washrooms
  - Offices
  - Sports store

2. Athletes are required to follow Physical distancing practices while in change rooms, walking to/from change rooms, walking to/from players benches, while on players benches, and walking to exit the facility.
3. During game activities athletes may come within 6' (2 meters) of each other however when play has stopped, players must follow Physical distancing practices.
4. Loitering and crowd gathering outside the facility are prohibited.

## Appendix H – Hockey Face Shield



## Appendix I – Non-Medical Face Masks

BAUER REVERSIBLE FABRIC FACE MASK
<p><b>(3) Reversible Design Options</b> <b>Sold Individually</b> <b>Double Layer 100% Polyester</b> <b>One Size Fits All</b> <b>Comfortable Nose Pocket</b> <b>Washable</b></p>


## APPENDIX J – DISPOSABLE LATEX GLOVES

### Product Details



Pictures accompanying product descriptions are provided for example only. Actual products and packaging may differ. Items may not be to scale.

Description: 223BF SMALL 4MIL VINYL DISPOSABLE  
GLOVE POWDER FREE CFIA COMPLIANT

Veritiv Code: 123180

Pack Size(s): 100/PKG  
1000/CS

Weight: 19.00

Weight Per: M(1000)

Manufacturer: RONCO PROTECTIVE PRODUCTS

Manufacturer Code: 223BF

Colour: BLUE

**APPENDIX K – FACE SHIELDS**



## APPENDIX L – APPROVED DISINFECTANTS

HEALTH CANADA DRUG IDENTIFICATION NUMBER: 02332965



[SDS](#) [MEDIA CENTER](#) [BIDD](#) [CAREERS](#) [A](#)

[COVID19](#) [SOLUTIONS](#) [INDUSTRY SECTORS](#) [TOOLS & RESOURCES](#) [SUSTAINABILITY](#)

PRODUCT CATALOGUE / OXIVIR® FIVE 16 CONCENTRATE

### Oxivir® Five 16 Concentrate

[LEAVE A REVIEW](#) | [HAVE QUESTIONS?](#)

A one-step disinfectant cleaner based on proprietary Accelerated Hydrogen Peroxide (AHP®) technology to deliver fast, effective cleaning performance. At 1:16 dilution, disinfects in five minutes. Virucide, bactericide, fungicide, mildewcide and non-food contact sanitizer. Kills MRSA, Norovirus and Canine parvovirus. Concentrate delivers economical performance. Meets bloodborne pathogen standards for decontaminating blood and body fluids. Colorless with a characteristic scent.

SELECT A SIZE

**4 x 1 gal./3.78 L Containers**   
SKU: 4963314

#### Certifications

- EPA
- FDA

#### Features

- Kills MRSA, VRE and Norovirus and Canine Parvovirus
- Based on proprietary hydrogen peroxide technology (AHP®)
- Disinfects in 5 minutes at 1:16 dilution

[SHOW MORE](#)

PRODUCT SKU: 4963314





**Oxivir® Plus (Canada)  
Disinfectant Cleaner Concentrate**

Version Number: 5

Preparation date: 2018-11-08

**1. IDENTIFICATION**

**Product name:** Oxivir® Plus (Canada)  
Disinfectant Cleaner Concentrate

**Product Code:** 5919024, 5919032, 5919041, 5919050, 5919067

**SDS #:** MSD001296

**Recommended use:** • Industrial/Institutional  
• Disinfectant Cleaner  
• This product is intended to be diluted prior to use

**Uses advised against:** Uses other than those identified are not recommended

**Manufacturer, importer, supplier:**  
US Headquarters: Diversey, Inc.  
P.O. Box 10747  
Charlotte, NC 28219-0747  
Phone: 1-800-352-2240  
SDS Internet Address: <https://sds.diversey.com>

Canadian Headquarters: Diversey Canada, Inc.  
3755 Laird Road Units 8-11  
Markham, Ontario L5L 0B3  
Phone: 1-800-666-7171

**Emergency telephone number:** 1-800-851-7145; 1-661-917-6133 (INT)

**2. HAZARD IDENTIFICATION**

**Classification for the undiluted product:**  
Serious eye damage/eye irritation Category 1



**Signal Word:** Danger.

**Hazard and Precautionary Statements:**  
**CAUSES SERIOUS EYE DAMAGE.**  
Wear chemical-splash goggles and chemical-resistant gloves. IF IN EYES: Rise cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Center (1-800-851-7145) or physician.  
**SUPPLEMENTAL INFORMATION: DO NOT MIX WITH AMMONIA, BLEACH OR OTHER CHLORINATED COMPOUNDS. Mix only with water.**  
Can react to release hazardous gases. May vigorously react with strong alkaline products resulting in splattering and excessive heat.

**Health hazards not otherwise classified (HNOC):** - Not applicable  
**Physical hazards not otherwise classified (PHNOC):** - Not applicable

**Classification for the diluted product:** G2 1.40  
This product, when diluted as stated on the label, is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and Canadian Hazardous Products Regulations (HPR) (WHMIS 2015-GHS).

Oxivir® Plus (Canada)  
Disinfectant Cleaner Concentrate

1 of 3

**Hazard and Precautionary Statements**  
None required.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Classified Ingredients**

Ingredient(s)	CAS #	Weight %
Dodecylbenzene sulfonic acid	68594-22-5	3 - 10%
Propylene glycol n-propyl ether	1599-01-3	3 - 10%
Hydrogen peroxide	7722-84-1	3 - 10%
2-Hydroxybenzoic Acid	69-72-7	1 - < 3%

\*Exact percentages are being withheld as trade secret information

**4. FIRST AID MEASURES**

**Undiluted Product:**

**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.

**Skin:** Rinse with plenty of water.

**Inhalation:** If breathing is affected, remove to fresh air. Get medical attention or advice if you feel unwell.

**Ingestion:** IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel.

**Notes to physicians:** Treat symptomatically.

**Most important symptoms/effects:** Burning, Irritation.

**Immediate medical attention and special treatment needed:** Not applicable.

**Aggravated Medical Conditions:** Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects.

**Diluted Product:**

**Eyes:** Rinse with plenty of water.

**Skin:** No specific first aid measures are required.

**Inhalation:** No specific first aid measures are required.

**Ingestion:** IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel.

**5. FIRE-FIGHTING MEASURES**

**Specific methods:** No special methods required.

**Substance extinguishing media:** The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

**Specific hazards:** Not applicable.

**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Extinguishing media which must not be used for safety reasons:** No information available.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions and clean-up methods:** Clean-up methods - large spillage: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water hose for final clean-up.

**7. HANDLING AND STORAGE**

**Handling:** Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. Rinse and wash contaminated clothing and footwear before re-use. Mix only with water. DO NOT MIX WITH AMMONIA, BLEACH, OR OTHER CHLORINATED COMPOUNDS. Can react to release hazardous gases. May vigorously react with strong alkaline products resulting in splattering and excessive heat. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

**Storage:** Keep tightly closed in a dry, cool and well-ventilated place.

**Stability (if applicable):** Not applicable.

**8. EXPOSURE CONTROL / PERSONAL PROTECTION**

Corona Plus (Canada)  
Disinfectant Cleaner Concentrate

**Exposure Guidelines:**

Ingredient(s)	CAS #	ACGIH	OSHA
Hydrogen peroxide	7722-84-1	1 ppm (TWA)	1 ppm (TWA) 1.4 mg/m <sup>3</sup> (TWA)

**Included Product:**

**Engineering measures to reduce exposure:**  
Good general ventilation should be sufficient to control airborne levels.

**Personal Protective Equipment:**

**Eye protection:** Chemical-splash goggles.  
**Hand protection:** Chemical-resistant gloves.  
**Skin and body protection:** No special requirements under normal use conditions.  
**Respiratory protection:** No personal protective equipment required under normal use conditions.  
**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.

**Excluded Product:**

**Engineering measures to reduce exposure:**  
Good general ventilation should be sufficient to control airborne levels.

**Eye protection:** No personal protective equipment required under normal use conditions.  
**Hand protection:** No personal protective equipment required under normal use conditions.  
**Skin and body protection:** No personal protective equipment required under normal use conditions.  
**Respiratory protection:** No personal protective equipment required under normal use conditions.  
**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.

**8. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Liquid  
**Evaporation Rate:** No information available  
**Odor threshold:** No information available  
**Melting point/Range:** Not determined  
**Autoignition temperature:** No information available  
**Solubility in other solvents:** No information available  
**Density:** 8.05 lb/gal; 1.037 kg/L  
**Bulk density:** No information available  
**Flash point (°F):** > 200 °F > 93.4 °C  
**Viscosity:** No information available  
**VOC:** 8.3 %  
**Flammability (Solid or Gas):** Not applicable  
**Sustained combustion:** Not applicable  
**Explosion limits: - upper:** Not determined - lower: Not determined  
 (4) 1.40  
**Dilution pH:** 2.2  
**Dilution Flash Point (°F):** > 200 °F > 93.4 °C  
**VOC % by wt. at use dilution:** 0.2

**Color:** Clear Colorless  
**Odor:** Surfactant  
**Boiling point/Range:** Not determined  
**Decomposition temperature:** Not determined  
**Solubility:** Completely Soluble  
**Relative Density (relative to water):** 1.037  
**Vapor density:** No information available  
**Vapor pressure:** No information available  
**Partition coefficient (n-octanol/water):** No information available  
**Elemental Phosphorus:** 0.09 % by wt.  
**pH:** 0.45  
**Corrosion to metals:** Not determined

\* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

**10. STABILITY AND REACTIVITY**

**Reactivity:** Not Applicable  
**Stability:** The product is stable  
**Possibility of hazardous reactions:** May vigorously react with strong alkaline products resulting in spattering and excessive heat.  
**Hazardous decomposition products:** Oxygen.  
**Materials to avoid:** Strong bases, Ammonia. Do not mix with chlorinated products (such as bleach). Do not mix with any other product or chemical unless specified in the use directions.  
**Conditions to avoid:** No information available.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure:**

Corvus 211us (Canada)  
 Disinfectant Cleaner Concentrate

Skin contact, Inhalation, Ingestion, Eye contact

**Delayed, immediate, or chronic effects and symptoms from short and long-term exposure**

**Skin contact:** No skin irritation is expected under normal use. May be irritating to skin if prolonged or repeated contact occurs.

**Eye contact:** Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness, watering, blurred vision or loss of vision.

**Ingestion:** May cause burns to mouth, throat and stomach. Symptoms may include stomach pain and nausea.

**Inhalation:** May be irritating to nose, throat, and respiratory tract. Symptoms may include coughing and difficulty breathing.

**Sensitization:** No known effects.

**Target Organs (St):** None known

**Target Organs (Rt):** None known

**Numerical measures of toxicity**

AIC - Oral (mg/kg):	4000
AIC - Dermal (mg/kg):	>5000
AIC - Inhalatory, mist (mg/l):	20
AIC - Inhalatory, vapors (mg/l):	>50

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity:** No information available.

**Persistence and Degradability:** No information available.

**Bioaccumulation:** No information available.

**13. DISPOSAL CONSIDERATIONS**

Do not contaminate water, food, or feed by storage or disposal.

**Waste from residue / unused products (undiluted product):**

This product, as sold, if discarded or disposed, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

**Waste from residue / unused products (diluted product):**

This product, when diluted as stated on this SDS, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

**Residue Storage:**

Refer to product label.

**Residue Disposal:**

Refer to product label.

**Container Disposal:**

Refer to product label.

**HCMA Hazard Class (undiluted product):** D002 Corrosive Waste.

**HCMA Hazard Class (diluted product):** Not Regulated.

**14. TRANSPORT INFORMATION**

**DOT (Canada) Bill of Lading Description:** NOT REGULATED

**IMDG (Down) Bill of Lading Description:** NOT REGULATED

**16. REGULATORY INFORMATION**

**International Inventories at CAS# Level:**

All components of this product are listed on the following inventories: Canada (DSL/NDSL).

**U.S. Inventories:**

**Chemical Data:**

Inventories	CAS #	Weight %	Section 151.101 (DSL)	Section 151.102 (DSL)	Section 212
Hydrogen peroxide	7722-84-1	5 - 10%		5000	

**Canadian Regulations:**

This product is a Canadian DIN registered product and is subject to certain labeling requirements for disinfectants under national regulations. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and workplace labels of non-disinfectant products by the HPR (WHMIS 2015). This SDS was prepared in accordance with the HPR (WHMIS 2015) criteria, which may result with differences between the label and SDS language.

UN No.: 0240004

**18. OTHER INFORMATION**

**NFPA (National Fire Protection Association):**

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health: 3  
 Flammability: 0  
 Irritability: 0  
 Special Hazards: -

**Stated Products:**

Health: 0  
 Flammability: 0  
 Irritability: 0  
 Special Hazards: -

Version Number: 5  
 Preparation date: 2018-11-08

Reason for revision: Not applicable  
 Prepared by: NAFRAC  
 Additional advice: \* Does not contain an added fragrance

**Notice to Reader:** This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.



PRODUCT CATALOGUE / VIROXTM/MC 5

## ViroxTM/MC 5

[LEAVE A REVIEW](#) | [HAVE QUESTIONS?](#)

A one-step disinfectant cleaner based on proprietary hydrogen peroxide (AHP®) technology to deliver fast and effective cleaning performance. Product is both virucidal and bactericidal. Disinfection requires a five-minute contact time. Also provides broad spectrum sanitizing on hard surfaces in 30 seconds. Concentrate delivers economical performance. Meets bloodborne pathogen standards for decontaminating blood and body fluids. Colorless and odorless.

SELECT A SIZE

2 x 84.5 oz./2.5 L J-Fill® ▼  
SKU: 2963741

### Certifications

- DIN

### Features

- Disinfects in 5 minutes at 1:16 dilution. Environmentally-responsible; no VOC's, no added fragrance, no NPE's
- Provides broad spectrum sanitizing on hard surfaces in 30 seconds. Designed for cleaning and disinfection of hard, non-porous surfaces.
- Proven effectiveness against the Polio virus, Sabin strain type 1 (ATCC VR 192) allows for a General Virucide claim against most enveloped and non-enveloped viruses. Kills Norovirus, MRSA and VRE in 5 minutes.

[SHOW MORE](#)

PRODUCT SKU: 2963741





**Virox® 5 (Canada)**  
**Concentrated Surface Cleaner & Disinfectant**  
**General Virucide**

Version Number: 2

Preparation date: 2015-04-03

**1. IDENTIFICATION**

**Product name:** Virox® 5 (Canada)  
 Concentrated Surface Cleaner & Disinfectant  
 General Virucide

**Product Code:** 2903741\_53801

**SUS #:** MS0300104

**Recommended use:** • Disinfectant Cleaner  
 • This product is intended to be diluted prior to use

**Uses advised against:** Uses other than those identified are not recommended.

**Manufacturer, importer, supplier:**  
 US Headquarters: Diversey, Inc.  
 P.O. Box 19747  
 Charlotte, NC 28216-0747  
 Phone: 1-888-302-2249  
 SDS Internet Address: <http://sds.diversey.com>

Canadian Headquarters:  
 Diversey Canada, Inc.  
 3705 Laird Road Units 8-11  
 Mississauga, Ontario L5L 0B3  
 Phone: 1-800-958-7171

**Emergency telephone number:** 1-800-851-7145; 1-601-917-8133 (ext)

**2. HAZARD IDENTIFICATION**

**Classification for the undiluted product**

Skin corrosion/irritation Category 2  
 Serious eye damage/eye irritation Category 1



**Signal Word:**

**Danger.**

**Hazard and Precautionary Statements**

**CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE DAMAGE.**

Causes burn/serious damage to mouth, throat and stomach. Keep container tightly closed. Avoid contact with eyes, skin and clothing. Wash affected areas thoroughly after handling. Wear protective gloves, protective clothing and eye or face protection. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a couple of milk or water. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Center (1-800-851-7145) or physician. Take off contaminated clothing and wash it before reuse. Dispose of in accordance with all federal, state and local applicable regulations. SUPPLEMENTAL INFORMATION: DO NOT MIX WITH AMMONIA, BLEACH OR OTHER CHLORINATED COMPOUNDS. Mix only with water. Can react to release hazardous gases. May vigorously react with strong alkaline products resulting in splashing and excessive heat.

**Virox® 5 (Canada)**  
**Concentrated Surface Cleaner &**  
**Disinfectant**  
**General Virucide**

1 of 5

**Health hazards not otherwise classified (HNOC)** - Not applicable  
**Physical hazards not otherwise classified (PHOC)** - Not applicable

**Classification for the diluted product @ 1:16**  
 This product, when diluted as stated on the label, is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and Canadian Hazardous Products Regulations (HPR) (WHMIS 2015-GHS).  
**Hazard and Precautionary Statements**  
 None required.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Classified Ingredients**

Ingredient	CAS #	Weight %
Hydroxyacetone	7722-84-1	3 - 10%
Hydroxyethylane phosphonic acid	2899-21-4	3 - 6%
Chloroxybenzene sulfonic acid	8954-22-5	1 - 3%
Phosphoric acid	7664-38-2	1 - 3%
Ammoniated sodium salts	54770-20-3	1 - 3%

\*Exact percentages are being withheld as trade secret information

**4. FIRST AID MEASURE**

**Undiluted Product:**

**Eye:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.  
**Skin:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.  
**Inhalation:** IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
**Ingestion:** IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water.  
**Notes to physician:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.  
**Most important symptoms/effects:** No information available.  
**Immediate medical attention and special treatment needed:** Not applicable.  
**Associated health conditions:** Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects.

**Diluted Product:**  
**Eye:** Rinse with plenty of water.  
**Skin:** No specific first aid measures are required  
**Inhalation:** No specific first aid measures are required  
**Ingestion:** IF SWALLOWED: Call a Poison Center (1-800-805-7145) or doctor/physician if you feel unwell.

**5. FIRE-FIGHTING MEASURE**

**Specific methods:** No special methods required  
**Substance extinguishing media:** The product is not flammable. Extinguish fire using agent suitable for surrounding fire.  
**Specific hazards:** Not applicable.  
**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.  
**Extinguishing media which must not be used for safety reasons:** No information available.

**6. ACCIDENTAL RELEASE MEASURE**

**Personal precautions:** Put on appropriate personal protective equipment (see Section 8.).

Virox® 5 (Canada)  
 Concentrated Surface Cleaner & Disinfectant  
 General Virucide

**Environmental precautions and clean-up methods:** Clean-up methods - large spillage: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

**7. HANDLING AND STORAGE**

**Handling:** Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not taste or swallow. Product residue may remain on/le empty containers. All precautions for handling the product must be used in handling the empty container and residue. Avoid breathing vapors or mists. Use only with adequate ventilation. Remove and wash contaminated clothing and footwear before re-use. Mix only with water. **DO NOT MIX WITH AMMONIA, BLEACH, OR OTHER CHLORINATED COMPOUNDS.** Can react to release hazardous gases. May vigorously react with strong alkaline products resulting in splashing and excessive heat. **FOR COMMERCIAL AND INDUSTRIAL USE ONLY.**

**Storage:** Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place.

**Aerosol Level (if applicable):** Not applicable.

**8. EXPOSURE CONTROL / PERSONAL PROTECTION**

**Exposure Guidelines:**

Ingredient(s)	CAS #	ACGIH	OSHA
Hydrogen peroxide	7722-84-1	1 ppm (TWA)	1 ppm (TWA) 1.4 mg/m <sup>3</sup> (TWA)
Phosphoric acid	7664-38-2	3 mg/m <sup>3</sup> (STEL) 1 mg/m <sup>3</sup> (TWA)	5 mg/m <sup>3</sup> (TWA)

**Undiluted Product:**

**Engineering measures to reduce exposure:** Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

**Personal Protective Equipment:**

**Eye protection:** Chemical splash goggles.  
**Hand protection:** Chemical-resistant gloves.  
**Skin and body protection:** Protective footwear. If major exposure is possible, wear suitable protective clothing and footwear.  
**Respiratory protection:** No personal protective equipment required under normal use conditions.  
**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.

**Diluted Product:**

**Engineering measures to reduce exposure:** Good general ventilation should be sufficient to control airborne levels.

**Eye protection:** No personal protective equipment required under normal use conditions.  
**Hand protection:** No personal protective equipment required under normal use conditions.  
**Skin and body protection:** No personal protective equipment required under normal use conditions.  
**Respiratory protection:** No personal protective equipment required under normal use conditions.  
**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Liquid  
**Evaporation Rate:** No information available  
**Color threshold:** No information available  
**Melting point/temperature:** Not determined  
**Autoignition temperature:** No information available  
**Solubility in other solvents:** No information available  
**Density:** 0.92 lbs/gal 1.069 Kg/L  
**Bulk density:** No information available  
**Flash point (°F):** > 200 °F > 93.4 °C  
**Viscosity:** 3 cP  
**VOC:** 0.07 %\*  
**Flammability (Solid or Gas):** Not applicable  
**Sustained combustion:** Not applicable  
**Explosion limits:** - upper: Not determined - lower: Not determined  
 $\text{G} \text{ } 1.16 \text{ } 1.8 \text{ } > 200 \text{ } ^\circ\text{F} \text{ } > 93.4 \text{ } ^\circ\text{C}$

**Color:** Clear, Colorless  
**Odor:** Characteristic  
**Boiling point/temperature:** Not determined  
**Decomposition temperature:** Not determined  
**Solubility:** Completely Soluble  
**Relative Density (relative to water):** 1.069  
**Vapor density:** No information available  
**Vapor pressure:** No information available  
**Partition coefficient (n-octanol/water):** No information available  
**Elemental Phosphorus:** 1.85 % by wt.  
**pH:** 0.7  
**Corrosion to metals:** Not determined

**VOC % by wt. at use dilution:** 0

\* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Section 94506

**10. STABILITY AND REACTIVITY**

**Reactivity:** Not Applicable  
**Stability:** The product is stable  
**Possibility of hazardous reactions:** May vigorously react with strong alkaline products resulting in spattering and excessive heat.  
**Hazardous decomposition products:** Oxygen.  
**Materials to avoid:** Strong bases, Ammonia. Do not mix with chlorinated products (such as bleach). Do not mix with any other product or chemical unless specified in the use directions.  
**Conditions to avoid:** No information available.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure:**  
 Skin contact, Inhalation, Ingestion, Eye contact

**Delayed, Immediate, or chronic effects and symptoms from short and long-term exposure**

**Skin contact:** Causes skin irritation. Symptoms may include pain (which may be delayed), redness, and/or discomfort.  
**Eye contact:** Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness, watering, blurred vision or loss of vision.  
**Ingestion:** Causes burns/ serious damage to mouth, throat and stomach. Symptoms may include stomach pain and nausea.  
**Inhalation:** May cause irritation and corrosive effects to nose, throat and respiratory tract. Symptoms may include coughing and difficulty breathing.  
**Sensitization:** No known effects.  
**Target Organs (BE):** None known  
**Target Organs (RE):** None known

**Numerical measures of toxicity**

**ATE - Oral (mg/kg):** >5000  
**ATE - Dermal (mg/kg):** >1000  
**ATE - Inhalatory, mists (mg/l):** 20  
**ATE - Inhalatory, vapors (mg/l):** >50

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity:** No information available.

**Persistence and Degradability:** No information available.

**Bioaccumulation:** No information available.

**13. DISPOSAL CONSIDERATIONS**

Do not contaminate water, food, or feed by storage or disposal.

**Waste from residues / unused products (undiluted product):**

This product, as sold, if discarded or disposed, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

**Waste from residues / unused products (diluted product):**

This product, when diluted as stated on this SDS, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

**Vehicle Storage:**

Refer to product label.

**Virus 2 5 (Canada)**  
**Concentrated Surface Cleaner & Disinfectant**  
**General Virucide**

**Peroxide Disposal:**  
Refer to product label.

**Container Disposal:**  
Refer to product label.

**RCRA Hazard Class (undiluted product):** D002 Corrosive Waste.  
**RCRA Hazard Class (diluted product):** D002 Corrosive Waste.

**14. TRANSPORT INFORMATION**

**DOT (Ground) Bill of Lading Description:** NOT REGULATED

**IMDG (Ocean) Bill of Lading Description:** NOT REGULATED

**15. REGULATORY INFORMATION**

**International Inventories at CAS# Level:**

All components of this product are listed on the following inventories: Canada (DSL), U.S.A. (TSCA).

**U.S. Regulations:**

**CAS#s & SDS:**

Ingredient(s)	CAS #	Weight %	CGHS/CLAS/AMA RC (Str)	Section 302 (F)C (Str)	Section 313
Hydrogen peroxide	7722-84-1	5 - 30%		5000	
Phosphoric acid	7664-38-2	5 - < 3%	5000		

**Canadian Regulations:**

This product is a Canadian DIN registered product and is subject to certain labeling requirements for disinfectants under national regulations. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and workplace labels of non-disinfectant products by the HPR (WHMIS 2015). This SDS was prepared in accordance with the HPR (WHMIS 2015) criteria, which may result with differences between the label and SDS language.

**DIN No.:** DIN 02230828

**16. OTHER INFORMATION**

**NFPA (National Fire Protection Association):**  
Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

**Health:** 0  
**Flammability:** 0  
**Irritability:** 0

**Diluted Product:**

**Health:** 0  
**Flammability:** 0  
**Irritability:** 0

**Version Number:** 2  
**Preparation date:** 2015-04-03

**Reason for revision:** Not applicable  
**Prepared by:** NAPIRAC  
**Additional advice:** • Does not contain an added fragrance

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**Virus 2 5 (Canada)**  
**Concentrated Surface Cleaner & Disinfectant**  
**General Virucide**

## mPerial: EPA Registration #: 10324-59-83129



Concentrated and highly dilutable detergent/disinfectant/sanitizer specifically formulated for use on hard, common, non-porous surfaces

- Proven effective against MRSA, Norovirus, HIV-1, E. Coli, salmonella, and others
- mPerial is included on the EPA List N: Disinfectants for Use Against SARS-CoV-2
- Destroys microorganisms by attacking and physically piercing (disrupting) the cell membrane while also using a positively charged Nano-particle (Nitrogen), which “electrocutes” harmful microbes on contact
- Odorless and colorless, and its nanotechnology bonding chemistry will not rub off on skin or wash out through repeated cleaning
- One gallon makes 64 gallons of usable product
- For use in Athletic Facilities, Schools, Hospitals, Nursing Homes, Institutions, Industrial, Food Establishments, Food Handling and Process Areas, Veterinary Clinics and Other Animal Care facilities
- Registered with the EPA as a virucide and fungicide. **EPA Registration #: 10324-59-83129**
- May be used in food preparation areas and many other areas
- Only available in 5 gallons
- FDA compliant

### Application:

- Standard dilution ratio: 2 oz. per gal of water
- Can be applied by sponge, brush, cloth, mop, by immersion, auto scrubber, mechanical spray device, hand pump, coarse pump or trigger spray device.
- Entire surface area must remain wet for 10 minutes
- Do not apply when temperatures are high
- Be sure all surfaces are dry before application

### Large Area Application:

- Approximately 1 gallon of diluted product per 250-300 sq. ft.
- Standard Use: 2 oz. per gal. (approx. 4-gal. diluted product per 250-gal. water tank)
- Extra Strong Use: 8 oz. per gal. (approx. 16-gal. diluted product per 250-gal. water tank)

SDS NUMBER - MP27G

# SDS

## Safety Data Sheet

### SECTION 1: PRODUCT IDENTIFICATION

<b>Product Name</b>	mPERIAL	
<b>Product Code #</b>	mPACTmPER	PRODUCT NUMBER - MPERIAL1, MPERIAL5
<b>CAS#</b>		
<b>Manufacturer</b>	mPact Environmental	
<b>Synonym</b>	None	
<b>Chemical Name</b>	mPerial	
<b>Chemical Formula</b>	N/A	
<b>Trade Secret</b>	No	
		<b>FOR CHEMICAL EMERGENCY</b> Call INFOTRAC 1-800-535-5053 24 hours per day, 7 days per week
<b>Address</b>	PO Box 277, Fountain Inn, SC 29644	
<b>Phone</b>	Local: (864)862-5553	
<b>Emergency Contact</b>	CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300 International CHEMTREC, call: 1-800-255-3924 NRC 1-800-424-8802 National Response Center (Coast Guard) Military 1-703-697-0218 Incidents involving explosives & ammunition D.O.D. 1-800-851-8061 Incidents of dangerous goods other than above	
<b>Recommended Use</b>	N/A	
<b>Restrictions on Use</b>	N/A	

### SECTION 2: HAZARD(S) IDENTIFICATION

Classifications:  
 Pictograms:  
 Signal Word:  
 Hazard Statements:  
 Precautionary Statements: None  
 Percent of the mixture consisting of ingredient(s) of unknown toxicity: Not known

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Designation	% of Comp.	CAS No.
Specified casl is not valid.	None	None

### SECTION 4: FIRST AID MEASURES

**Eyes:** Flush eyes with water for at least 15 minutes. If irritation persists, seek medical attention.

**Skin:** Immediately remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.

**Inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration using a pocket mask type resuscitator. Call a physician immediately.

PRODUCT NAME - MPERIAL

SDS NUMBER - MP27G

Ingestion: May cause irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting, and diarrhea. If swallowed, do not induce vomiting and seek medical attention.

**SECTION 5: FIRE FIGHTING MEASURES**

Fire Hazard: No  
 Flash Point F(C): N/A  
 Flammable Limits: The greatest known range is LOWER N/A UPPER N/A  
 Extinguishing Media: Water Mist Foam Dry Powder CO2  
 Special protective Equipment and firefighting procedures: N/A  
 Unusual Fire & Explosion: None noted.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

Personal Precautions: Avoid any uncontrolled release of material.  
 Spills / Leaks: Where spills are possible, a comprehensive spill response plan should be developed and implemented. Utilize recommended protective clothing and equipment.

**SECTION 7: HANDLING & STORAGE**

Handling: Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and prompt removal of material from eyes skin and clothing.  
 Storage: Store in a sealed container in a cool, dry environment.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure Limits:  
 OSHA Permissible Exposure Limits (PELs): Not established  
 Threshold Limit Values (TLVs): Not established

Engineering Controls:  
 N/A

Personal Protective Equipment:

Face:  
 Eyes: Safety Glasses  
 Skin: Gloves

Respiratory:  
 Pictograms:



**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Clear liquid	Upper Flammability/Explosive Limit:	N/A
Odor:	Mild	Lower Flammability/Explosive Limit:	N/A
Odor Threshold:	N/A	Vapor Pressure:	N/A
pH:	8 - 10	Vapor Density:	N/A
Melting Point F(C):	N/A	Vapor Temperature:	N/A
Freezing Point F(C):	N/A	Relative Density/Specific Gravity:	1.002
Boiling Point F(C):	N/A	Solubility:	Water Soluble
Boiling Range:	N/A	Partition Coefficient:	N/A
Flash Point F(C):	N/A	Auto-ignition temperature:	N/A
Flash Point Method used:	ASTM D93	Decomposition temperature:	N/A
Evaporation Rate:	N/A	Viscosity:	N/A
Flammability:	Undetermined	VOC Content:	N/A
		VOC Less Water & Exempts	N/A

PRODUCT NAME - MPERIAL

SDS NUMBER - MP27G

**SECTION 10: STABILITY AND REACTIVITY**

Chemical Reactivity: N/A  
 Chemical Stability: Stable under normal ambient temperature and conditions.  
 Conditions to Avoid: N/A  
 Materials to Avoid: N/A  
 Hazardous Decomposition: Oxides of carbon and nitrogen

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Inhalation**

**Description of effects from short- and long-term exposure:**  
 Adverse effects are not expected when this product is used in open areas. In the event a person had an existing sensitivity to products such as this, avoid using the product in enclosed areas where vapors may gather. If breathing becomes difficult or painful consult a doctor.  
**Description of symptoms:**  
 Prolonged or excessive inhalation may cause respiratory tract irritation.  
**Measure of toxicity:**  
 Not known

**Ingestion**

**Description of effects from short- and long-term exposure:**  
 Immediately consult a physician or poison control center. Follow the instructions given to you by the physician or poison control center.  
**Description of symptoms:**  
 Not known  
**Measure of toxicity:**  
 Not known

**Eyes**

**Description of effects from short- and long-term exposure:**  
 If irritation should develop, flush eyes with water. If irritation persists, consult a doctor.  
**Description of symptoms:**  
 Contact may cause eye irritation.  
**Measure of toxicity:**  
 Not known

**Skin**

**Description of effects from short- and long-term exposure:**  
 This material should not cause irritation. In people with an existing sensitivity to such products, a reddening of the skin may occur. If irritation persists, consult a doctor.  
**Description of symptoms:**  
 Not expected to present a hazard in normal industrial use.  
**Measure of toxicity:**  
 Not known

**Carcinogens listing:**

NTP: No  
 IARC: No  
 OSHA: No  
 GHS: No

Chronic Toxicity: No

**SECTION 12: ECOLOGICAL INFORMATION**

**Aquatic Toxicity:** This product contains pesticides that are toxic to aquatic life. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless with accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit. Do not discharge effluent to sewer systems without notifying the local sewage treatment plant authority.

Inactivation of solutions containing this product may be accomplished by the addition of anionic surfact in a quantity equivalent the percent active ingredients.

**Biodegradability:** Readily biodegradable  
**Bioaccumulation:** Unlikely

**SECTION 13: DISPOSAL CONSIDERATION**

Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations. Regulations may vary by location.

PRODUCT NAME - MPERIAL

SDS NUMBER - MP27G

**SECTION 14 : TRANSPORT INFORMATION**

Not regulated in transportation by DOT/IMO/IATA. Not classified as dangerous in the meaning of transport regulation.

Pictograms:

**SECTION 15: REGULATORY INFORMATION**

OSHA Regulated Hazard:	No
DOT Regulated:	No
E C Classification:	Non-applicable
TSCA Status:	In compliance with TSCA inventory requirements for commercial purposes
SARA 312 Regulated Chemical(s):	No
SARA 313 Regulated Chemical(s):	No
EPA Registration Number:	Non-applicable
California Prop. 65:	None known
PA Right to know Chemical(s):	None known
NJ Right to know Chemical(s):	None known
Additional State Regulations:	None known
Canada:	Non-applicable

**SECTION 16: OTHER INFORMATION**

NFPA



HMIS

mPERIAL	
HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	B

The above information is based on the present state of our knowledge of the product at the time of publication. No warranty is implied with respect to the quality or the specification of the product and the user must satisfy himself that the product is entirely suitable for his purposes.

**DISCLAIMER** This SDS is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. The information contained here has been compiled from sources considered by Other to be dependable and is accurate to the best of the company's knowledge. The information is offered in good faith. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. Other assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

## APPENDIX M – APPROVED HAND SANITIZER

HEALTH CANADA DRUG IDENTIFICATION NUMBER: 80098194

SAFETY DATA SHEET

**Beattie's Distillers Hand Sanitizer**

Version 1.1

Date of issue: March 23, 2020



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### SECTION 1. IDENTIFICATION

Product Name : Beattie's Distillers Hand Sanitizer

#### Manufacturer or supplier's details

Company name of supplier : Beattie's Distillers Inc.

Address : 6673 13<sup>th</sup> Line, Alliston, Ontario, L9R 1V4

Telephone : (705) 435-2444

Emergency telephone : Chemical Emergency Preparedness and Response Unit  
(613) 946-5690

#### Recommended use of the chemical and restrictions on use

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids : Category 3

Eye irritation : Category 2A

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GHS Label element

Hazard pictograms	:	
Signal Word	:	Warning
Hazard Statements	:	Flammable liquid and vapor. Causes serious eye irritation.
Precautionary Statements	:	<p><b>Prevention:</b>                      Keep away from heat/sparks/open flames/hot surfaces                      Keep container tightly closed.                      Use explosion-proof electrical/ ventilating/ lighting/ equipment.                      Use only non-sparking tools.                      Take precautionary measures against static discharge.                      Wash skin thoroughly after handling.                      Wear protective gloves/ eye protection/ face protection.</p> <p><b>Response:</b>                      IF IN EYES: Rinse cautiously with water for several minutes.                      Remove contact lenses, if present and easy to do. Continue rinsing.                      If eye irritation persists: Get medical advice/attention.</p> <p><b>Storage:</b>                      Store in a well-ventilated place. Keep cool.</p> <p><b>Disposal:</b>                      Dispose of contents/ container to an approved waste disposal plant.</p>

**Other hazards**

Vapors may form explosive mixture with air.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance/ Mixture : Mixture

**Hazardous ingredients**

Chemical Name	Concentration (%)
Ethanol	80% v/v
Glycerol	1.45% v/v
Hydrogen peroxide	0.125% v/v

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**SECTION 4: FIRST AID MEASURES**

General advice	:	In the case of an accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt consult a medical professional.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	:	If swallowed, DO NOT induce vomiting. Call a poison control centre or get medical attention immediately.
Most important symptoms and effects, both acute and delayed	:	Causes serious eye irritation.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
Notes to physician	:	Treat symptomatically and supportively.

**SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO2)
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire	:	Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.

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Hazardous combustion products:	Carbon oxides
Specific extinguishing methods :	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. If it is safe to do so, remove undamaged containers from fire area. Evacuate area.
Special protective equipment :	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions :	Remove all sources of ignition.
Protective equipment :	Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.
Environmental precautions :	Discharge into the environment must be avoided. If safe to do so, prevent further leakage or spillage. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials :	Non-sparking tools should be used. Soak up with inert absorbent material. Suppress gases/vapors/mists with a water spray jet. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

**SECTION 7. HANDLING AND STORAGE**

Technical measures :	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation :	Use the local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation.

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Advice on safe handling	:	Do not breathe vapors or spray mist. Do not swallow/ingest. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice. Non-sparking tools should be used. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	:	Keep in properly labeled containers. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.
Materials to avoid	:	Do not store with the following product types: <ul style="list-style-type: none"><li>• Strong oxidizing agents</li><li>• Organic peroxides</li><li>• Flammable solids</li><li>• Pyrophoric solids</li><li>• Self-heating substances and mixtures</li><li>• Substances and mixtures which in contact with water emit flammable gases</li><li>• Explosives</li><li>• Gases</li></ul>

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Engineering measures</b>	:	Minimize workplace exposure concentrations. Use only in an area equipped with explosion proof exhaust ventilation. Use with local exhaust ventilation.
<b>Personal protective equipment</b>	:	
Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Protection provided by air purifying respirators against exposure to any

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hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

- Eye protection : Wear the following personal protective equipment:  
Safety goggles.
- Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
When using do not eat, drink or smoke.  
Wash contaminated clothing before re-use.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : Liquid
- Colour : Clear, colourless
- Odor : Ethanol
- Density : 0.991 g/ml
- Solubility : Soluble
- Explosive properties : Not explosive
- Oxidizing properties : The formula is classified as oxidizing when combined with an oxidizing agent.

**SECTION 10. STABILITY AND REACTIVITY**

- Reactivity : Not classified as a reactivity hazard.
- Chemical stability : Stable under normal conditions.
- Possible hazardous reactions : Flammable liquid and vapour.  
Vapours may form explosive mixture with air.  
Can react with strong oxidizing agents.

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- 
- |                         |   |  |
|-------------------------|---|--|
| Conditions to avoid     | : | Heat, flames and sparks.                       |
| Incompatible materials  | : | Oxidizing agents                               |
| Hazardous decomposition | : | No hazardous decomposition products are known. |

**SECTION 11. TOXICOLOGY INFORMATION**

**Information on likely routes of exposure**

- Inhalation
- Skin contact
- Ingestion
- Eye contact

**SECTION 12. ECOLOGICAL INFORMATION**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

- |                        |   |  |
|------------------------|---|--|
| Waste from residues    | : | Dispose of in accordance with local regulations.   |
| Contaminated packaging | : | Dispose of as unused product.<br>Empty containers should be taken to an approved waste handling site for recycling or disposal.<br>Do not burn, or use a cutting torch on, the empty drum. |

**SECTION 14. TRANSPORT INFORMATION**

No data available

**SECTION 15. REGULATORY INFORMATION**

No data available

**SECTION 16. OTHER INFORMATION**

No data available

APPENDIX N – MERV FILTERS



The Camfil AP-Thirteen extended surface pleated filter offers filtration for applications that have 2” or 4” deep filter tracks. The AP-Thirteen is a MERV 13 filter when evaluated per ASHRAE Standard 52.2 and meets the requirements for minimum filtration efficiency, as published in LEED manuals for new or existing buildings. The AP-Thirteen may reduce the size of the HVAC system, saving valuable mechanical area floor space. It also simplifies the upgrading of in-place systems, allowing existing units to meet LEED requirements without major equipment modification.

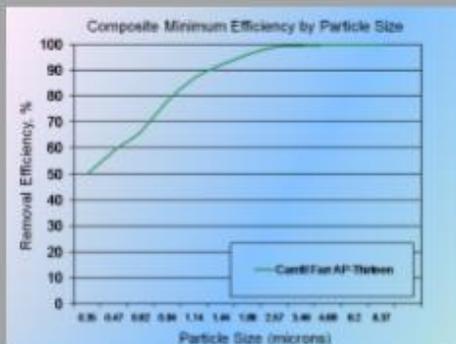
Standard pleated filters remove nuisance dusts, lint and contaminants associated with staining, and are primarily designed to protect equipment and act as prefilters. As a stand-alone filter, the AP-Thirteen will perform these tasks and removes sub-micron particles, defined as lung-damaging by cognizant authorities. The AP-Thirteen, according to filtration application design manuals, can be used as the only filter for special process areas, electrical shops, paint shops, average general offices and laboratories. Other applications include analytical laboratories, electronics shops, drafting areas, conference rooms, and above-average general offices.

Built for today’s HVAC systems, the AP-Thirteen:

- Has 15 pleats per linear foot in a 2” nominal depth or 11 pleats per linear foot in a 4” nominal depth. The radial pleat design ensures full use of media area and a longer filter life.
- Includes a synthetic fiber blend with a unique media loft that provides high efficiency ASHRAE MERV 13 performance and high dust-holding capacity.
- Has a welded wire media grid backing, treated for corrosion resistance, preventing media oscillation or filter pack failure as filter pressure drop increases.
- Has a high wet-strength beverage board frame that creates a rigid and durable filter pack. The AP-Thirteen will not bow or deflect and is guaranteed to 2.0” w.g.

These combined features allow the AP-Thirteen to outlast other MERV 13 pleated panels by a factor of 20% or more resulting in the lowest total cost of ownership (TCO).

High efficiency filtration meeting the needs for a 2” or 4” deep MERV 13 pleated panel for LEED facility certification



The efficiency chart above is extrapolated from particle size versus efficiency information when evaluated per ASHRAE Standard 52.2.

LEED, Leadership in Energy and Environmental Design is a registered trademark of the United States Green Building Council.



# AP-Thirteen

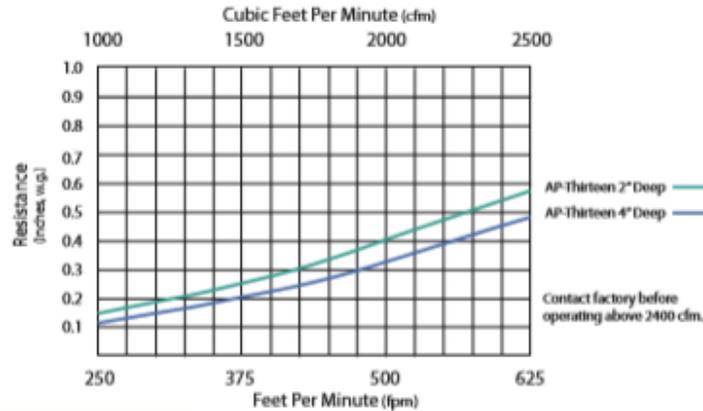
High Efficiency, High-Capacity, Pleated Panel Filter for Meeting LEED<sup>1</sup> Requirements

**Performance Data**

Part Number	Nominal Depth (Inches)	Nominal Size (Inches)	Actual Size (Inches)			Initial Resistance (Inches, w.g.)	Airflow Capacity (cfm)	Total Media Area (square feet)	Number of Pleats
			Depth	Height	Width				
405414-004	4	20 x 16	3.75	19.38	15.38	0.33	1110	15.6	11 pleats per linear foot
405414-003		20 x 20		19.38	19.38		1390	16.8	
405414-002		24 x 12		23.38	11.38		1000	13.8	
405414-009		24 x 16		23.38	15.38		1330	18.7	
405414-008		24 x 18		23.38	17.38		1500	20.1	
405414-007		24 x 20		23.38	19.38		1670	22.5	
405414-001		24 x 24		23.38	23.38		2000	27.5	
405414-005		25 x 16		24.38	15.38		1390	19.5	
405414-006		25 x 20		24.38	19.38		1740	23.5	
405413-010		2		20 x 14	1.75		19.50	13.50	
405413-014	20 x 12		19.50	11.50		830	7.3		
405413-001	20 x 16		19.50	15.50		1110	9.8		
405413-002	20 x 20		19.50	19.50		1390	11.7		
405413-006	24 x 12		23.38	11.38		1000	8.3		
405413-012	24 x 16		23.50	15.50		1335	11.8		
405413-008	24 x 18		23.50	17.50		1500	12.9		
405413-007	24 x 20		23.50	19.50		1670	14.1		
405413-005	24 x 24		23.38	23.38		2000	17.3		
405413-004	25 x 16		24.50	15.50		1390	12.3		
405413-009	25 x 18		24.50	17.50		1565	13.5		
405413-003	25 x 20		24.50	19.50		1740	14.7		
405413-011	25 x 14		24.50	13.50		1220	10.4		
405413-012	24 x 16		23.50	15.50		1335	11.8		
405413-013	25 x 25		24.50	24.50		2170	19.0		

DATA NOTES:  
 1.0" w.g. recommended maximum final resistance. System design may dictate a lower change-out point.  
 The AP-Thirteen filter is classified by Underwriters Laboratories as UL 900. Maximum operating temperature 200° F (93° C).  
 Performance in tolerance with ARI Standard 850.

**Initial Resistance Versus Airflow**



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For detailed specifications please consult your local Camfil Distributor or Representative or [www.camfil.com](http://www.camfil.com).  
 Camfil has a policy of uninterrupted research, development and product improvement. We reserve the right to change designs and specifications without notice.

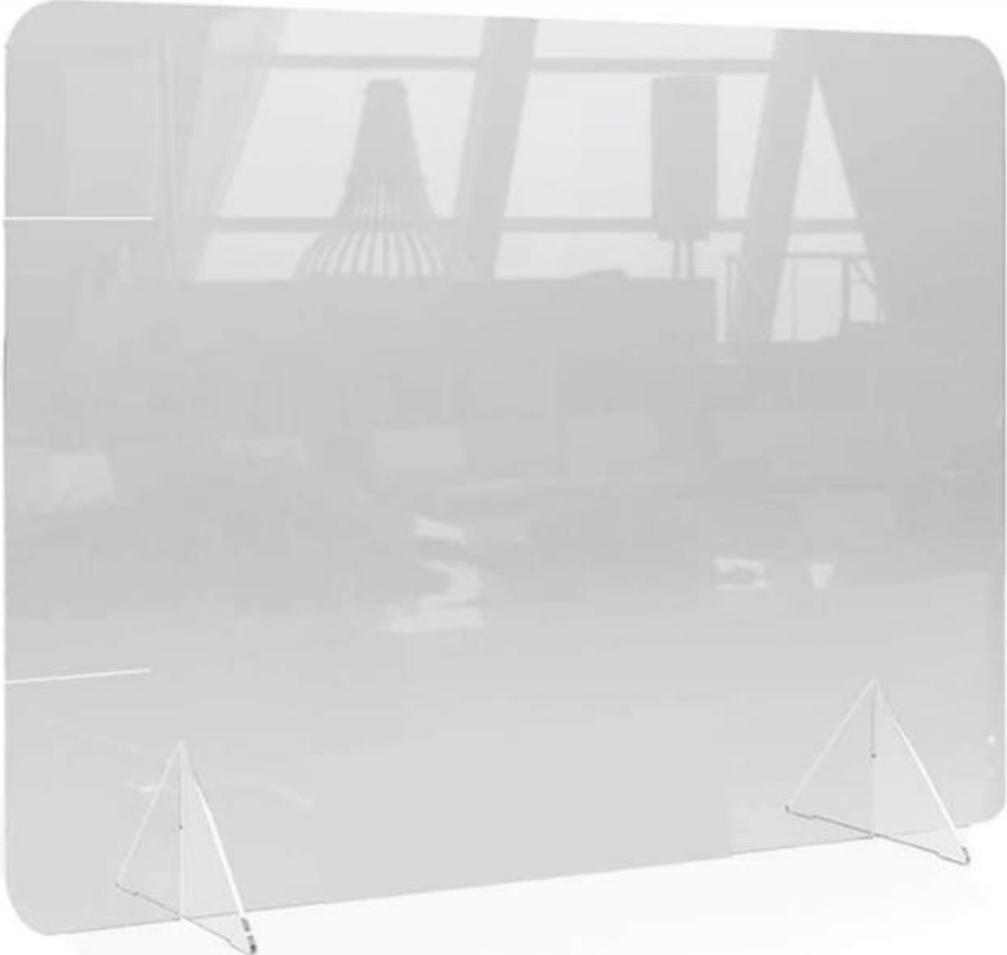


Camfil | 1 North Corporate Drive, Riverdale, NJ 07457 | Tel: (973) 616-7300

[www.camfil.com](http://www.camfil.com)

**APPENDIX O – SNEEZE SHIELDS**

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# Physical Properties of Acrylite® FF

ACRYLIC SHEET

Property <sup>(M)</sup>	ASTM Method	Typical Value (0.250" Thickness) <sup>(a)</sup>		
<b>Mechanical</b>	Specific Gravity	D 792	1.19	
	Tensile Strength	D 638	10,000 psi (69 M Pa)	
	Elongation, Rupture		4.5%	
	Modulus of Elasticity		400,000 psi (2800 M Pa)	
	Flexural Strength	D 790	17,000 psi (117 M Pa)	
	Modulus of Elasticity		480,000 psi (3300 M Pa)	
	Compressive Strength (Yield)	D 695	17,000 psi (117 M Pa)	
	Impact Strength		0.4 ft. lbs/in. of notch	
	Izod Milled Notch	D 256	(21.6 J/m of notch)	
	Rockwell Hardness	D 785	M-93	
	Barcol Hardness	D 2583	48	
	<b>Optical</b>	Refractive Index	D 542	1.49
		Light Transmission, Total	D 1003	92%
<b>Thermal</b>	Forming Temperature	—	Approx. 300°F (149°C)	
	Deflection Temperature under load, 264 psi	D 648	195°F (91°C)	
	Vicat Softening Point	D 1525	220°F (105°C)	
	Maximum Recommended Continuous Service Temperature	—	160°F(c) (71°C)	
	Coefficient of Linear Thermal Expansion	D 696	0.000040 in/in - °F (0.000072 m/m - °C)	
	Coefficient of Thermal Conductivity	Cenco-Fitch	1.3 BTU/(Hr) (Sq. Ft.) (°F / in.) (0.19 w/m•K)	
	Flammability, Burning Rate (0.125" thickness)	D 635	1.0 in/min. (25 mm/min.)	
	Self Ignition Temperature	D 1929	850°F(455°C)	
	Specific Heat @ 77°F		0.35 BTU/(lb.) (°F) (1470J/Kg•K)	
	Smoke Density Rating	D 2843	4.8%	
	<b>Electrical</b>	Dielectric Strength Short Time (0.125")	D 149	430 volts/mil (17 KV/mm)
Dielectric Constant				
60 Hertz		D 150	3.6	
1000 Hertz			3.3	
1000000 Hertz			2.8	
Dissipation Factor				
60 Hertz		D 150	0.06	
1000 Hertz			0.04	
1000000 Hertz			0.02	
Volume Resistivity	D 257	10 <sup>16</sup> ohm-cm		
Surface Resistivity	D 257	10 <sup>16</sup> ohms		
<b>Water Absorption</b>				
24 hrs @ 73°F	D 570	0.2%		
<b>Odor</b>	—	None		
<b>Taste</b>	—	None		

**NOTES:** (a) Typical values; should not be used for specification purposes.  
 (b) Values shown are for 0.250" thickness. Some values will change with thickness or pigmentation.

(c) It is recommended that temperatures not exceed 160°F for continuous service, or 190°F for short intermittent use.

# Chemical Resistance of Acrylite FF<sup>®</sup>

ACRYLIC SHEET

The table below gives an indication of the chemical resistance of ACRYLITE FF sheet. The code used to describe chemical resistance is as follows:

**R = Resistant**

ACRYLITE FF sheet withstands this substance for long periods and at temperatures up to 120°F (49°C).

**LR = Limited Resistance**

ACRYLITE FF sheet only resists the action of this substances for short periods at room temperatures. The resistance for a particular application must be determined.

**N = Not Resistant**

ACRYLITE FF sheet is not resistant to this substance. It is either swelled, attacked, dissolved or damaged in some manner.

Plastic materials can be attacked by chemicals in

several ways. The methods of fabrication and/or conditions of exposure of ACRYLITE FF sheet, as well as the manner in which the chemicals are applied, can influence the final results even for "R" coded chemicals. Some of these factors are listed below.

**Fabrication** — Stress generated while sawing, sanding, machining, drilling, and/or forming.

**Exposure** — Length of exposure, stresses induced during the life of the product due to various loads, changes in temperatures, etc.

**Application of Chemicals** — by contact, rubbing, wiping, spraying, etc.

**The table should therefore be used as only a general guide and, in case of doubt, it should be supplemented by tests made under actual working conditions.**

Chemical	Code	Chemical	Code
Acetic Acid (5%)	LR	Hydrogen Peroxide (<40%)	R
Acetic Acid (Glacial)	N	Hydrogen Peroxide (>40%)	LR
Acetone	N	Isopropyl Alcohol	LR
Ammonium Chloride	R	Kerosene	R
Ammonium Hydroxide (10%)	R	Lacquer Thinner	N
Ammonium Hydroxide (Conc.)	R	Methyl Alcohol (30%)	LR
Aniline	N	Methyl Alcohol (100%)	N
Battery Acid	R	Methyl Ethyl Ketone (MEK)	N
Benzene	N	Methylene Chloride	N
Butyl Acetate	N	Mineral Oil	R
Calcium Chloride (Sat.)	R	Nitric Acid (10%)	R
Calcium Hypochlorite	R	Nitric Acid (40%)	LR
Carbon Tetrachloride	N	Nitric Acid (Conc.)	N
Chloroform	N	Oleic Acid	R
Chromic Acid	LR	Olive Oil	R
Citric Acid (20%)	R	Phenol Solution (5%)	N
Cottonseed Oil (Edible)	R	Soap Solution (Mild dish soap)	R
Detergent Solution (Heavy Duty)	R	Sodium Carbonate (2%)	R
Diesel Oil	R	Sodium Carbonate (20%)	R
Diethyl Ether	N	Sodium Chloride (10%)	R
Dimethyl Formamide	N	Sodium Hydroxide (1%)	R
Diocyl Phthalate	N	Sodium Hydroxide (10%)	R
Ethyl Acetate	N	Sodium Hydroxide (60%)	R
Ethyl Alcohol (30%)	LR	Sodium Hypochlorite (5%)	R
Ethyl Alcohol (95%)	N	Sulfuric Acid (3%)	R
Ethylene Dichloride	N	Sulfuric Acid (30%)	R
Ethylene Glycol	R	Sulfuric Acid (Conc.)	N
Gasoline	LR	Toluene	N
Glycerine	R	Transformer Oil	R
Heptane	R	Trichloroethylene	N
Hexane	R	Turpentine	R
Hydrochloric Acid	R	Water	R
Hydrofluoric Acid (25%)	N	Xylene	N