

COVID-19 BACKGROUND

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The disease

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

Symptoms

Common symptoms include fever, cough, fatigue, shortness of breath, and loss of smell and taste

Asymptomatic Carriers

Some people who have transmitted Covid-19 do not exhibit symptoms, though they may still be contagious.

Common transmission modes

1. Transmission via respiratory droplets in close proximity to others (talking, coughing or sneezing)
2. Transmission via contaminated surfaces (followed by touching eyes, nose or mouth)

Untreated, Covid-19 remains infectious in the air and on hard surfaces (New England Journal of Medicine, 2020)

Airborne particles	3 hours suspension in the air Timing influenced by humidity, temperature, ventilation, deposit size of virus
Hard surfaces Including copper, wood, paper, glass, plastics, stainless steel	4 hours - 7 days Reports vary as to life span of infectious viral deposits, but for the purpose of mitigating contamination across hard surfaces, a scheduled cleaning protocol is recommended (see cleaning checklist).

PREVENTION

Prevention Steps

1. Adhere to occupancy limits
2. Maintain physical distance
3. Wear a face covering
4. Attend to personal hygiene
5. Clean as you go

Further detail

125 square feet per person in MIT labs, gathering size limited to 25 people
6' recommended distance between people during sustained contact.
Closer distance only for short (i.e., few minutes) periods,
Hand-in-hand teamwork is discouraged
Well-fitting cloth face covering or surgical mask for optimal protection
Wash hands frequently: 20 second duration with soap and water
Use hand sanitizer (60% alcohol min) as an interim alternative to hand washing
MIT labs are adhering to a "wipe in / wipe out" policy

INFRASTRUCTURE RECOMMENDATIONS

- | | |
|----------------------------------|---|
| 1. Hands-free washing stations | Hands free stations mitigate cross-contamination of viral deposits |
| 2. Hands-free sanitizer stations | Make these stations abundant, and in close proximity to high contact areas (example: by entry doors, tool crib check out, frequently used tools, etc) |
| 3. Dedicated Covid trash bins | Containing used wipes, gloves, masks, etc |
| 4. Outdoor Canopies | Mask breaks and fresh air are essential. Consider dedicated outdoor spaces to address the comfort and physical / mental well-being |

FUTURE AREAS OF INQUIRY

1. Sanitizing wands
2. MERV Filters for ventilation (ratings 11/13)
3. UV lights for targeted sanitization

COVID-19 CLEANING PROTOCOL

CLEANING

Cleaning

Cleaning is defined as the action of removing dirt, grease, dust and debris that contributes to unsanitary conditions. This process includes sweeping, dusting and de-cluttering.

DISINFECTION

Disinfection

Disinfection describes a process that eliminates many or all pathogenic microorganisms. In the context of Covid-19, we want to ensure that we are killing viral deposits on surfaces that may contribute to transmission of the disease.

Selection of disinfectant

Use an EPA registered disinfectant.

To determine whether your disinfectant is compliant with the EPA's criteria for use against SARS-CoV2, (the virus that causes Covid-19) see the product label and review details at www.EPA.gov

Application of disinfectant

Follow product instructions to ensure proper contact time with surfaces. This is necessary to kill the virus.

RECOMMENDED CLEANING / DISINFECTION PROTOCOL

Area	Frequency	Method	Target
Entry / Exit	At least once every 24 hours	Disinfect	High-touch surfaces (light switches, door knobs, sink areas)
Conference Rooms	Before and after every use	Disinfect	Counter tops Light switches Telephones Office supplies (whiteboard markers, erasers, etc)
Machine Tool Area Work Bench Area	Before and after every use	Disinfect	Work benches, Machine tool interfaces (handles, controls, touch screens)
Hand Tools Tooling (drills, endmills, etc.)	Before and after every use	Disinfect	Handles
Office Area (shared)	Before and after every use	Disinfect	Office equipment (keyboards, mice, printers, etc)
Office Area (personal)	Before and after every shift	Disinfect	Office equipment (keyboards, mice, printers, etc)
Designated Covid-19 Waste bins	Daily	Empty	Receptacles designated for used masks, gloves, wipes, etc
General Facility	Monthly, and as needed	Clean	Low touch surfaces: shelves, racks Empty trash Dust / wipe down shelving and horizontal surfaces

COVID-19 CLEANING CHECKLIST

CLEANING / DISINFECTION CHECKLIST

Facility Name _____

Week of Record _____

	MON	TUE	WED	THU	FRI	SAT	SUN
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MORNING

Sanitize Doorknobs							
Sanitize Light switches							
Sanitize Tables							
Sanitize Machine Tools							
Sanitize Sink Area							
Refill Sanitizer Station							
Empty Covid Trash							
INITIAL HERE							

AFTERNOON

Sanitize Doorknobs							
Sanitize Light switches							
Sanitize Tables							
Sanitize Machine Tools							
Sanitize Sink Area							
Refill Sanitizer Station							
Empty Covid Trash							
INITIAL HERE							

EVENING

Sanitize Doorknobs							
Sanitize Light switches							
Sanitize Tables							
Sanitize Machine Tools							
Sanitize Sink Area							
Refill Sanitizer Station							
Empty Covid Trash							
INITIAL HERE							



COVID-19 CLEANING PRODUCTS

OVERVIEW

EPA GUIDELINES

The Environmental Protection Agency maintains a list of products that demonstrate efficacy against the coronavirus SARS-CoV-2 (COVID-19). Consult www.epa.gov for further details about specific products.

EPA CHECKLIST FOR SAFE AND EFFECTIVE USE OF DISINFECTANT

1. Check that your product is EPA approved
2. Read the directions, paying careful attention to:
 - a. surface types and
 - b. precautionary statements
3. Pre-clean the surface (particularly if visibly dirty)
4. Observe the contact time (the surface should remain wet to ensure the product is effective)
5. Wear gloves and wash your hands
6. Lock it up: re-seal bottles of solution and store out of reach of children

PRACTICAL CONSIDERATIONS

1. Flammability (of particular importance if alcohol based wipes aggregate in one area)
2. Rust. (hydrogen peroxide has been floated as a possible disinfectant - but is known to corrode ferrous surfaces)

CLEANING PRODUCT RECOMMENDATIONS

GENERAL PURPOSE

Morning Mist #33, Manufactured by Diversey

This product is being used by MIT Custodial in common areas and for high touch surfaces to combat Covid-19. A quaternary-based non-alkaline disinfectant with excellent cleaning properties. Can be used in healthcare, hotels, schools and restaurants. 10-minute contact time. Bactericide and virucide. Kills MRSA, and VRE. Meets bloodborne pathogen standards for decontaminating blood and body fluids. Blue-green in color with a fresh scent.

Virex Disinfectant Cleaner, Manufactured by Diversey

This product is being used at Mass General Hospital for cleaning patient rooms. All purpose Virex Disinfectant Cleaner is a ready-to-use, quaternary-based, hospital-grade disinfectant that provides excellent cleaning and deodorizing in one step. 10-minute contact time. Disinfects multiple organisms, Kills Norovirus, VRE and MRSA. Meets OSHA's bloodborne pathogen standards for decontaminating blood and body fluids.

COMMERCIAL WIPES

Cavi-Wipes Surface Disinfectant Wipes, Manufactured by Metrex

This product is being used by MIT Medical in the Covid-19 Testing Trailer. CaviWipes and CaviwipesXL are durable, non-woven, non-abrasive towelettes that presaturated with a powerful surface disinfectant, CaviCide. (CaviCide is a convenient, ready-to-use, intermediate-level surface disinfectant that is effective against TB, HBV, HCV, viruses (hydrophilic and lipophilic), bacteria (including MRSA and VRE) and fungi.*) CaviWipes are recommended for use on non-porous surfaces and fixtures. Cavi-Wipes 1 is a clinical grade wipe that requires 1 minute contact time.

Super Sani-Cloth Germicidal Disposable Wipes, Manufactured by PDI

This product is being used at Mass General Hospital for cleaning patient rooms and high touch surfaces. Effective against 30 microorganisms in 2 minutes. Ideal for daily use in fast-paced environments that require short contact times and broad coverage of microorganisms.

HAND SANITIZER

Balm of Gilead, Manufactured by allnaturalbalm.com

This product is being used by the Pappalardo Lab in hand sanitizing stations in addition to custom wipes stations (in which the solution has been absorbed into shop wipes). This is an alcohol antiseptic topical hand sanitizer with 80% alcohol infused with moisturizing glycerine and a ginger/lime fragrance. (The CDC recommends a minimum of 60% alcohol solution to combat Covid-19)

