

DISINFECTION OF EXHIBITS AND VISITOR SPACES

As our industry begins to look at the lifting of regulations on access to public spaces and services disinfection is often one of the top concerns and priorities for Taylor Studios' clients.

Disinfection will be a daily aspect for our industry for the foreseeable future, but don't grab the bleach just yet.

First, take a moment to do a triage of your space and exhibits. Chances are you have a wide variety of materials including plastics, phenolics, vinyl, PVC, wood, stone, brick, and ceramic, just to name some of the most common exhibit surfaces. The variety of materials in your space will likely dictate that you use more than one product and approach in order to achieve effective disinfection without causing undesired effects to your exhibits. Think carefully about your surfaces what you are applying to them, and how you are applying it. No one product or technique will be appropriate for all situations.



Your disinfecting toolbox will likely include the following items, or substitutes with similar qualities:

- Sodium hypochlorite (found in Clorox liquid bleach products)
- Benzalkonium chloride (found in Lysol products)
- Hydrogen Peroxide
- Alcohol
- Basic soap, no color, scents, or additives that will leave residue
- Distilled water
- Paper Towel
- Non-abrasive cloth
- Latex or vinyl gloves
- Trigger spray bottles

Note that no solvents are included in this list.

Chemicals such as Acetone, lacquer thinner, paint thinner, and mineral spirits are not disinfectants and will very likely damage the surfaces of your exhibits.

Many brands of disinfectants, particularly wipes, are very hard to find in stock currently. You will likely have to expand your options to find something available. To assist you in this the EPA has published a list, known as List N, of products known to be effective against Covid-19. This list is extensive, over 250 entries, and is continually updated. See the link list on page 3.

Always follow manufacturer, EPA, and CDC guidelines for preparation, dilution, and application of disinfectants. These are chemicals that, improperly used, can have very adverse effects.

Note that for proper disinfection there is a contact time for each disinfecting product. Usually 1,2, or even 10 minutes that the product will need to be present on a given surface for disinfection to occur. Read the instructions for your specific product to find the contact time. In addition to the EPA's List N, the CDC has published guidelines for disinfection. See the link list on page 3.

Plastic, phenolics, vinyl, PVC, stone, brick, and ceramic surfaces are quite durable and can easily tolerate any of the common disinfectants when applied following manufacturer's recommendations.



Avoid using bleach-based disinfectants on unprotected graphics, printed surfaces, painted surfaces, fabrics, and unsealed stained wood. Bleach products are best for plastic, laminates, phenolic, PVC, vinyl, protected graphics (such as direct prints with a vinyl surface), and wood surfaces sealed with polyurethanes or epoxies.



Avoid using alcohol on unsealed wood surfaces as it can discolor wood and adversely affect stains.



Be extra careful of Acrylics. When cleaning acrylic surfaces avoid the three A's – Abrasives, Alcohol, and Aromatics.

As general rule, abrasives must be avoided for all surfaces found in your exhibits.

TVs, monitors, and touch screens have their own special set of concerns. They get touched often (even non-touch screens) so disinfection is important for them. However, the screen surfaces of these components can be sensitive to chemicals and certainly abrasives, and as these are electronics, the use of liquids on them must be carefully done. A vendor used frequently by Taylor Studios, ELO Touchscreen Monitors and Signage, has produced an excellent guide to disinfecting their equipment and those instructions would be applicable to other TVs and monitors commonly found in Taylor Studios Exhibits. See the link list on page 3.

Like washing with hands with soapy water, even just cleaning surfaces with a mild soap and water goes a long way to mechanically control the presence of persistent viruses on exhibits. We recommend using basic soaps with no colors or scents such as Ivory liquid soap or Orvus. These soaps leave very little residue and a clean water wipe after the soap solution will be an effective rinse. Be sure to consider your water source. Hard water can leave its own residue and you may want to use filtered or distilled water, particularly on "see-through" surfaces such as cases and screens.



From the National Parks Service, National Center for Preservation Technology and Training:

"All viruses are bits of genetic code or RNA that are bundled inside lipids and proteins and then it has an exterior fat-based envelope, casing known as a viral envelope. It's this fatty envelope that elects the corona virus be susceptible to soap and water. When we wash the surfaces, when we wash our hands with soap and water, when we wash surfaces with soap and water that fatty envelope is washed away and it causes the virus to fall apart. So, we are fortunate that the Corona Virus does have a fatty envelope, viral envelope because some viruses like the Norovirus have a different kind of envelope and they are much harder to disinfect."

Use disposable towels or wipes whenever possible and change towels frequently to avoid disbanding contaminants from one area to many others. Don't use paper towel on acrylic surfaces or TV screens, monitors, or touch screens as paper towel is abrasive to those surfaces and will haze them with micro-scratches over time. There are specialty disposable wipes for those surfaces

Be cautious using a spray bottle. When ever possible spray onto the cleaning cloth and then wipe the surface. Broadcast spraying of cleaners and disinfectants can put liquids and chemicals where you don't want them as easily as putting them where you do want them.

Disinfection is, of course, not a one-time thing. As you consider visitor traffic and surface properties of your exhibits you will want to establish a repeating regimen for disinfection. In many areas once a day will be appropriate, but some areas will need multiple passes each day and some areas will need less. That is a subjective decision for each circumstance but

erring on the side of caution will always be the best choice. Be sure to establish a policy and a protocol for your facility's disinfection regimen and have it well communicated throughout.

We're all in this together.

Sources and useful links:

These three links have very important information on this subject, we strongly recommend reading them:

National Parks Service, National Center for Preservation Technology and Training

<https://www.ncptt.nps.gov/blog/covid-19-basics-disinfecting-cultural-resources/>

The EPA List N

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

How to clean your touch screen (and any other monitor, for that matter)

<https://www.elotouch.com/support/technical-support/cleaning>

Other good sources of information on this subject:

The Journal of Hospital Infection:

[https://www.journalofhospitalinfection.com/article/S0195-6701\(20\)30046-3/fulltext](https://www.journalofhospitalinfection.com/article/S0195-6701(20)30046-3/fulltext)

The CDC recommendations for cleaning and disinfection for households (good carryover to exhibits)

https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fprepare%2Fcleaning-disinfection.html

This article gives a good interpretation of the information dense EPA List N

<https://heavy.com/news/2020/03/coronavirus-lysol-wipes-spray/>