



*International Alliance of Theatrical Stage Employees, Moving Picture Technicians, Artists
and Allied Crafts of the United States, its Territories and Canada*

MAKE-UP ARTISTS and HAIR STYLISTS GUILD LOCAL 706



828 N. Hollywood Way, Burbank, CA 91505
(818) 295-3933 • Fax (818) 295-3930
www.local706.org



MAKE-UP ARTISTS & HAIR STYLISTS GUILD I.A.T.S.E. LOCAL 706

Make-up, Hair & Prosthetic Back-to-Work COVID-19 Safety Guidelines (July 8, 2020)

For the purposes of this document, all Make-up Artists and Hair Stylists will be referred to as **Artists**. All Actors (including Leads, Day-players, Stunts, Background/Atmosphere, Photo-doubles, Stand-ins and other on-screen or on-stage persons) will be referred to as **Performers**.

General

Productions:

- Shall provide a maintenance plan for the workspace as per OSHA 1910 Standards, Personal Protective Equipment (PPE) standards (in general industry, 29 CFR 1910 Subpart I). Heightened cleaning shall be practiced. In all circumstances, whether the main workspace, additional workspaces, stage or location, Artists will need a clean area in which to perform their duties.
- Provide EPA-registered disinfectants as per Department Head(s) request.
- Bathrooms and Hand Washing Stations shall have running water, non-touch soap dispensers and disposable paper towels available at all times for hand hygiene.
- Ample trash receptacles shall be available and these shall be emptied regularly.
- The **Local 706 COVID-19 Safety Task Force** recommends that all workspaces be outfitted with vapor and particulate filtering air purifiers/scrubbers (installed or portable). These units will help mitigate aerosol transmission of Covid-19 as well as other airborne diseases such as Influenza by filtering air from airbrushing, blow dryers, hair sprays, etc. that may contain viral, chemical, or particulate matter in the workspace. The use of HEPA and carbon filtration has been shown to decrease, and at times, eliminate airborne virus particulates.

Artists:

- Shall wear all appropriate PPE and must follow hand hygiene procedures. Appropriate training on donning, doffing, disinfecting, and safe PPE use is required. Masks, face shields, gloves, smocks, etc. may be worn if required for the circumstances. Masks are to be changed daily or disinfected for reuse (depending on type), or disposed of (depending on type). If used, gloves shall be disposed of and new ones used for each Performer, or ***after each contaminating action*** (see cross-contamination).

- **The Local 706 COVID-19 Safety Task Force recommends a mask that is aerosolized oil-resistant / oil-proof; currently that is an ‘R’ or ‘P’ series (95, 99 or 100), or comparable or superior.**
- Shall maintain all products and items used for their work, and their workspace ensuring proper disinfection and “Clean Room” procedures. No one may handle the Artist’s tools and products to prevent cross-contamination.

Prosthetics:

- In addition to masks, gloves and/or Face Shields or Goggles may be required for specific circumstances, such as working with air brushes, dentures, veneers, and for simulated blood work. Gloves shall be disposed of and new ones used for each Performer, or *after each contaminating action*.
- In all possible circumstances, **Centers for Disease Control (CDC)** Social Distancing guidelines shall be adhered to, however, there are situations in Prosthetic application where more than one Artist may be required to work on a Performer. In this case, all possible steps shall be taken to ensure the safety of the Performer and the Artists.
- All specialty contact lenses must be properly fit by an optometrist and applied/disinfected by their licensed trained technicians or the Performer may apply the lenses to themselves. A lens tech is required on set when specialty contact lenses are being used.

Workspaces

- All workspaces shall have access to a clean and sanitary water supply. If the workspace is a trailer, it should be outfitted with a water treatment system so that water used for washing hands, tools and counters is safe. Water in the holding tanks shall be emptied/replenished regularly.
- All frequently touched surfaces (railings, handles, latches, door handle, etc.) shall be wiped with disinfectant outside and in. This shall be repeated regularly throughout the day.
- In order to maintain clean room conditions, portable hand washing stations shall be positioned outside each workspace door and all people entering shall wash their hands, *before* touching the railing and/or door handle and entering.
- There shall be a garbage container with a lid labeled “contaminated” or “soiled” at each workspace door.
- No food will be allowed in the workspace. Breakfast orders shall be taken in advance or via text message. Performers shall eat in their own designated areas. Artists’ Non-Deductible Breakfasts (NDB’s) shall be taken away from the workspace.
- There shall be a “holding table” placed outside the workspace on which Performers or visitors shall place their property, to retrieve it when they are finished in the workspace. No extraneous items are allowed in the workspace – cell phones, backpacks, wardrobe, etc. Bottled or closed container drinks that have been disinfected at the holding table are acceptable in the workspace. This holding table shall be disinfected regularly, and may need a tent or umbrella covering if the table is outdoors.
- A person designated by the Department Head(s) shall be stationed outside the workspace to assist with all guidelines and guard personal items on the holding table. This person will assist in limiting traffic in and out of the workspace and may also go between set and the main workspace during the day so that individuals working in these different areas can

maintain their clean zone without stopping and washing and disinfecting - should something be needed, thus saving time.

- In the case where the Hair Artists must pin on hats or other wardrobe pieces, the items may be brought into the workspace, but must sit on the Performer's lap or be placed in a designated "holding area" and not on the Artist's disinfected station. The **Local 706 COVID-19 Safety Task Force** recommends that these items be applied on set.
- Outside doors shall be posted with a list of instructions for all who enter the Clean Room environment. All shall comply. This may include a note on the call sheet for crew to be aware of the Clean Room policy for the workspace and any area on set or outside that is dedicated to Hair and Make-up.
- No pets are allowed in the workspace.
- Workspace doors should be kept closed as much as is practicable in order to preserve the Clean Room environment, and allow ventilation/AC systems to work properly.
- There shall be an air purifier / scrubber using HEPA/Carbon filtration (or the equivalent), either permanent or portable, installed in all workspaces due to bioaerosols and airbrush applications, and the use of aerosols, chemicals, and spray disinfectants. Each purifier/scrubber shall be maintained, and filters disinfected and/or replaced according to manufacturers' guidelines.

New and Returning Productions

- If a workspace has been left loaded when productions shut down, then prior to re-starting it must be unloaded and cleaned. Once all items are removed, they must be disinfected and/or replaced (contaminated, expired or damaged products), and placed in closed containers before re-loading the workspace or storage area. (see Load In in appendix).
- Adequate time shall be allocated in advance of all production-related work (fittings and other related activities) in order to outfit work environments with proper safety improvements; to provide proper training of new disinfection guidelines for employees (depending on equipment, supply chain availability and size of show) in prep or returning from Hiatus.
- All Pre-prep shall be supervised by Departments Head(s).

Load In:

- Prior to Load in, the workspace shall be professionally cleaned (including all air-conditioning filters and components) by Production, Note: cleaning always precedes disinfecting. Artists shall be responsible for all disinfection in the workspace.
- Each workstation shall be supplied with a garbage container with a lid, labeled "contaminated" or "soiled." Garbage cans with lids must be of the step/release or wave of hand lid elevate mechanism, and be maintained at intervals.
- There shall be additional labeled containers in the workspace for soiled or dirty towels.
- Brooms and dust pans, and mops for wet floor disinfection, shall be provided in every workspace.
- The workspace may require a hazardous waste container for disposing of chemical disinfectants.
- The workspace shall be outfitted with wall-mounted or counter-mounted non-touch battery-powered containers to dispense soap, moisturizer, hand sanitizer and facial cleanser.

- The workspace shall be provided with refillable sprays bottles for spraying disinfectant solutions.
- All Special Make-up and Hair items (wigs and hairpieces, ornaments, ventilated and loose facial hair, and prosthetics and other appliances) shall be cleaned, disinfected and stored as appropriate to each individual item by the Artist(s). Hair Artists and Prosthetic Make-up Artists may require specialized containers and/or shelving/cabinets for uncontaminated storage.
- On the load in days, only two (2) persons from each department shall load in at a time, (i.e., two (2) Make-up then when they are done, two (2) Hair, or one (1) from each department) depending on the size of space.
- Workstations shall be a minimum of six (6) feet apart. A tape mark shall show proper six-foot (or appropriate distance as designated by the CDC) Social Distancing zones, outline the work-station zones, and mark any areas for waiting. Each workstation shall be tape-marked on both counter and floor.
- All counters and interior surfaces and chairs shall be wiped with disinfectant before further load in proceeds.
- For load in (and for each workday) one “clean table” shall be set up outside the workspace Clean Zone and all items to be loaded in shall be placed on the-“contaminated” side, get wiped with disinfectant, then moved to the “clean” side. Once this procedure is complete, the disinfected tools, supplies and products may be put into the workspace. This process shall be repeated with each succeeding load introduced into the workspace.
- All smaller bottles, products, disposable products (cotton, swabs etc.), tools and equipment shall be placed into disinfected containers with lids or sealed bags and then stored in the drawers and cabinets of the workspace. This includes any area behind the station by the mirror, and all wall cubbies – ***no open (not covered) products***, except for a tissue dispenser or glove dispenser.
- A separate satellite equipment and storage area may be needed to comply with the new product containment guidelines as well as to store the increased volume of additional PPE, single use supplies and disinfection products.
- Permanent station equipment may be set up as needed, once these items have been cleaned and then disinfected – compressors, airbrushes, hoses and so on. Exposed items should be kept to a minimum. Items stored in workspace drawers and cabinets shall be in containers with lids or sealed bags, (foundations, eye colors, lip pencils etc.) All products should be new if possible and remain in their original packaging until used.
- There should be no excess decorations. No clutter on the stations. All surfaces shall be kept clear so they are easy to disinfect at the beginning or end of the day and between each service.
- Look boards, continuity and crew paperwork may be displayed as needed. Whenever possible, paper should be laminated or stored in plastic sleeves such as call sheets, safety data sheets, continuity etc., and be posted to board or wall/station with command clips etc. so they can be referenced by all but not necessarily touched. All may be passed over with UV-C light daily.
- Up-to-date Safety Data Sheets (SDS) shall be available in all workspaces.

Daily Routine

- On arrival and after the required check-in procedure, each Artist shall wash their hands outside the workspace and use the clean table guidelines on items they are bringing into the workspace.
- Artists should avoid wearing hand jewelry to work and should have short nails without opaque polish so under nails can be visible. Artists are advised to bring the minimum items they need for the day. Personal products (phones, books, purses, needed clothes and the like), should be kept in a disinfected container with a lid, under the Artist's station.
- Each Artist may then proceed with their assigned duties for workspace disinfection and daily set up needs, including disinfection of all surfaces using liquid or spray methods, including an Electrostatic Sprayer unit.
- If the chair has a headrest, a clean cloth, towel or paper covering may be placed over the headrest.
- Towels to be placed in a towel oven for use in make-up removal should be immersed in a tub of electrolyzed water for the correct contact time, then squeezed, rolled, and placed in a disinfected plastic bag before putting them in the towel oven. Wipe the oven, microwave and refrigerator with disinfectant daily.
- Each item on the Artist's work station shall be disinfected to begin the day, and then again between Performers. A wipe-able plastic counter cover may be used on the station - but not a cloth one, unless a new clean one is used for each Performer. The station should be topped with a disposable set-up towel or paper covering that is changed between Performers. Metal, glass or plastic palettes that can be disinfected, or disposable wax paper pallet sheets used for dispensing Makeup or Hair products, are permitted.
- In addition to any individually negotiated or contractual set up times, Department Head(s) will work with Production to allocate sufficient and appropriate time for each Artist to set up. The **Local 706 COVID-19 Safety Task Force** recommends a minimum of thirty (30) minutes be allotted to complete the initial set up and disinfection process, including donning of all required PPE and hand hygiene.
- A station set-up should include the following:
 - Two containers or pans (such as a 7" x 11" Butcher's enameled metal pan). One container, labeled "disinfected," shall hold all the items the Artist will use on their Performer. The other pan, labeled "contaminated," shall hold the items that have been used, until they can be disinfected and returned to their appropriate storage, or the Performer's bag.
 - Product containers shall be wiped with disinfecting wipes or wet solutions and given the appropriate contact time. Products like blush, lipstick, palettes and the equivalent that cannot have contact with wet chemical disinfectant, may be treated with a UV-C wand or electrolyzed water where appropriate.
 - A disinfected plastic bag (including Zip Lock types) may be used to store and carry individual Performer's products which may consist of items bought for and dedicated to that Performer, or a multi-palette with refillable make-up containers, brushes, electric shavers or disposable razors, individual electric clipper blades (such as with Oster Clippers) and any other additional items to avoid cross-contamination.

- The station should have one container of wet disinfectant of choice, (and if porous objects are being re-used, such as Beauty Blenders, then electrolyzed water in a second container). Example: 2 oz. - 4 oz. small dishes for cleaning razors, a comb & hairbrush disinfectant in a plastic or glass container.
- Every container shall be labeled appropriately, and disinfectant solutions changed daily (or if they become cloudy).
- Brushes may be disinfected by 1) removing the make-up with brush cleaner or 99% alcohol, then 2) placing the brush in 70% alcohol and allowing contact time of ten (10) minutes (minimum). Electrolyzed Water is not the best choice for brushes since water takes too long to evaporate, and UV-C Light does not penetrate past the surface and into the brush.
- For wet applications during a task, 99% alcohol, brush cleaner and/or water may be placed in separate, properly labeled, dedicated containers on the disinfected workspace. If small cc cups are utilized, the contents should be readied for each Performer, and the contents emptied and disposed of properly – if contaminated, cloudy, or at the end of the task.
- Brushes and tools shall be kept in a closed container until ready for use, either in a drawer or in a box with a lid on the station and then they can be placed in the “clean” pan before the Performer arrives.
- Cell phones shall not be placed on disinfected stations - although they may be placed in a UV-C box near the station or in a drawer.
- All fluids, semi-fluids and powders shall be dispensed with a shaker, dispenser pump or spray type container. All creams, lotions and other cosmetics used for Performers shall be kept in closed containers and dispensed to a palette with a disposable applicator or a disinfected metal spatula in order not to contaminate the remaining portion.
- No one should enter a tape-marked work zone while the Artist is working with a Performer. Once the Performer leaves the zone, the Artist will prepare for the next Performer and indicate when it is ok to proceed with the next person entering their work zone.
- Sufficient and appropriate time shall be allocated for proper disinfection and re-set; the **Local 706 COVID-19 Safety Task Force** recommends a minimum of twelve (12) minutes between Performers. This timing may be assisted by making sure all available chairs are occupied efficiently by a person designated by the Department Head(s). This person may prep stations and items to facilitate efficient time management inside the workspace.
- All Artists should check the overall workspace periodically in order to ensure tasks are done and to assist other Artists with disinfection guidelines as necessary.
- Performers should leave their cell phones, sunglasses and other contaminated items outside of the workspace on the holding table. If the Performer must have a phone or script in the workspace, they will not be allowed to put these items on the Artist’s disinfected station, and they will not be allowed to touch anything without using hand sanitizer or washing their hands again if they have been using their phone or other items.
- Artists may use a disposable, cloth or vinyl cape, as appropriate to the task. If using a cloth or vinyl cape, a disposable sterile neck strip (Sanex) shall be used and the cape shall be laundered or disinfected before reuse.
- Performers will have washed their hands before entering the workspace, but they should use some additional hand sanitizer before sitting at the Artist’s station. This will avoid

cross-contamination if they need to touch anything such as eyelash curlers, mascara wands, lip brushes, etc.

- Performers should shave at home or in their room to reduce any blood/hair contamination, (unless specific styling of facial hair is required by the Artist).
- If the Performer requires nail care or treatment, it is recommended that the Artist be gloved and wearing a mask and shield when filing nails or artificial nails or using acrylic powder. The Performer must wash their hands again before proceeding with treatment. All files and disposable items must be discarded after being used.
- Stations shall be completely wrapped down at the end of each day so the workspace can be cleaned by Production. Custodial Crew may only commence their cleanup, vacuuming and servicing once all Makeup and Hair equipment/supplies are covered and stored.
- End of the day wrap down will require sufficient time to doff PPE and disinfect tools and products prior to packing away to efficiently prepare for the next day.
- Towels, cloth capes, smocks, washable puffs and any other washable items shall be stored for laundering in a clearly marked covered container or laundry bag. If washing facilities are not provided at the workspace, all items needing to be laundered must be sent out to be cleaned each night by a professional laundry service. If the service has a “sanitize” option this should be utilized.
- A guidelines list should be posted daily with tasks checked off as they are accomplished.
- **The Local 706 COVID-19 Safety Task Force** suggests that one Artist from each department be sent to lunch early in order to return to the main workspace 30 minutes before the rest of the Artists in order to ensure the workspace is properly set up and disinfected for after-lunch touchups.
- It is the responsibility of all Artists to report any incident of possible exposure, contamination, breach of Safety Guidelines or infection to their Department Head(s) and/or designated Production individual.

Prosthetics:

- All prosthetics shall be stored in disinfected and sealed containers until use.
- All packing and shipping material shall be disinfected before un-packing and any non-essential packaging disposed of once removed.
- All appliances shall be disinfected before application to a Performer with 70% alcohol, electrolyzed water (HOCl) or an appropriate disinfectant that is safe for the prosthetic material and the Performer’s skin.
- Removal of appliances from the Performer shall be done with disinfected removal brushes or disposable single use puffs and brushes.

Prosthetic Make-up and Adhesives:

- Prosthetic application shall follow all workspace Safety Guidelines as established in this document.
- Adhesives and thinners shall be decanted into individual, clearly labeled CC cups on the Artist’s workstation. Remaining products may not be poured back into the original container. Cups and contaminated product shall be disposed of once the application is completed.

- Adhesives used for set maintenance shall be decanted into individual containers labeled with the contents and the Performer's name on whom they will be used, and stored in the Performer's bag.
- Loose powder shall be poured out for each Performer, used with a newly opened powder puff or brush, and disposed of at the end of the application

Airbrushing:

- Airbrushing should be restricted to well-ventilated workspaces with air scrubber filtration (or equivalent) in place.
- Performers should wear a mask and/or Nasal Filter where applicable.
- Airbrush hose shall be wiped, or sprayed with disinfectant between Performers.
- Compressor moisture trap shall be cleared and disinfected between Performers.

Dental Appliances and Stains:

- If a pre-fit of a dental appliance is required, then fittings shall be done in an appropriately prepared workspace as per the Safety Guidelines established and comparable to the main workspace.
- Extra protection shall be worn by the Artist when handling dental veneers to avoid contact with saliva or bioaerosols. These precautions include a disposable covering or smock, gloves, face shield, and a mask.
- All acrylic veneers, dentures and the cases/forms they are stored in shall be disinfected before and after the appliance is placed into or removed from the Performer's mouth. Products such as CaviCide, OptiCide, UV-C sterilizers and Electrolyzed Water are recommended.
- Temporary tooth stains shall be decanted into single use containers and applied to non-capped/bonded teeth using a single use disposable applicator.

Simulated Blood Effects:

- Simulated blood products, including Mouth Blood, shall be decanted into single use containers that are clearly labeled with the contents and the Performer's name on which they will be used.
- Bulk blood shall be kept in a disinfected and sealed container in the main workspace or auxiliary storage area.
- In addition to standard PPE, face shields and/or gloves may be worn for simulated blood work.
- Precautions must be in place to protect Performers and Crew from saliva contaminated simulated blood that has splattered from the mouth onto skin, garments, and/or the set.

Daily Hire Artists:

- Production shall provide an appropriate, clean, well ventilated workspace, set up as per the established guidelines. If rolling stations are used, the station work area shall be delineated by tape on the floor and 6-foot measures (or current CDC guidelines) marked off between stations.
- Artists' work environments shall be cleaned by production prior to occupancy, including the floors.

- If rolling stations are used, they shall be cleaned by production prior to the arrival of the Artists. The Artists will disinfect each station themselves to ensure proper guidelines are followed. It is preferable to have metal or plastic stations over wood, which is harder to disinfect unless the surface is completely sealed.
- Each rolling station shall be large enough to accommodate the separation of “clean” and “soiled” tools.
- Each rolling station shall have a garbage container with a lid, labeled “contaminated” or “soiled.” Garbage cans with lids shall be of the step/release or wave of hand lid elevate mechanism, and be maintained at intervals.
- Each station shall have a clean table associated with it. On arrival, the Daily Hire Artist will set their kit beside the clean table, and move the items they need to work with, wiping each item with disinfectant. They can then wipe their station with disinfectant and set up for work.
- If hard chairs are used, these shall be disinfected in between each Performer. If cloth chairs are used, they shall be disinfected with UV-C wands, spray disinfectant, or use of an electrostatic unit. Otherwise, they shall be covered with paper for each succeeding Performer.
- Rolling Stations require the same guidelines between Performers as are observed in the main workspace, including the recommendation of a minimum of twelve (12) minutes to re-set between Performers.
- Background Performers (BG) shall wait at appropriately marked distances in line or in chairs until called. Make-up and Hair work areas shall be for the sole use of Artists, not combined with BG holding and/or catering.
- Disposable lip, mascara and other applicators should be used. Touch-up products can be given to Background Performers in (disinfected) folded wax paper palettes (or equivalent) for self-maintenance during the day.
- Production shall supply hand sanitizer, 70% and 99% alcohol, other wet disinfectants such as Barbicide, an electrolyzed water-making unit, UV-C wands and UV-C cabinets as needed. Day checkers shall not be required to bring these items as part of their kits.

Set or Stage

- An illuminated and sanitary touch-up space for Artists is required in order to hold kits and allow Performers and Artists to establish a “clean room” area for touch-ups within proximity of the set.
- In order to prevent cross-contamination and save time traveling between set and the main workspace, there may be a large rolling cabinet (metal or sealed wood) that locks - similar to the ones used by Props and other Crafts. The interior of the cabinet may be equipped with a UV-C light. On set, this cabinet may be the central hub for Performer bags and other needed Artists' equipment and products. On either end of this cabinet, proper lighting, mirror and a fold-down counter may be constructed (similar in concept to the old exterior stations on trailers). The station and chair(s) shall be cleaned and disinfected between touch-ups, and cannot be used by anyone else; it should be closed between sessions to avoid unintended use and contamination. There shall be a covered and labeled trash container that is attached to or always travels with the cabinet. The cabinet shall be disinfected by the Artists throughout the day.

- In addition to the standard set Makeup and Hair rolling cabinet, a separate Set Prosthetics rolling cabinet may be required for prosthetics work.
- It is understood that the set is a place of change and adaptation, but there shall be a delineated place for Hair and Make-up on the set with sufficient space to accommodate the rolling cabinet, set chairs and appropriate CDC recommended Social Distancing. The **Local 706 COVID-19 Safety Task Force** suggests that Production assign a space in advance of the Artists initial arrival on set and assist with this process with each subsequent move.
- On set touch-ups should be done during lighting and set-up time; in this way, Last Looks can be kept to a minimum. Whenever possible, CDC Social Distancing guidelines shall be practiced.
- In situations where quick changes and continuity re-sets are necessary (including but not limited to Live TV and Theatre) more than one Artist may be required to touch up the performer simultaneously. The Artists involved shall plan their touch-up procedures before approaching the performer. To ensure swift, efficient execution while maintaining best possible distance, each artist may work on opposite sides of the performer so both tasks may be accomplished at once (in tandem). If the situation allows, each artist shall alternate stepping in and out.
- When continuity re-sets and quick maintenance require Artists to step into the set between takes, Artists may follow the same procedures as described above. When multiple performers are working, hand-hygiene shall be performed between re-setting each performer and single-use supplies shall be used.

Location

- The cabinet described above may need to accompany the Artists on location. Artist's products and equipment and Performer's bags may be loaded from it into disinfected tubs with lids and transported to set.
- Easily accessed hand washing stations shall be available at all times.

Appendix

Air Purifier / Scrubber: is a portable filtration system that removes bioaerosols, particles, aerosols, gasses, and/or chemicals from the air within a given area. These machines draw air in from the surrounding environment and pass it through a series of filters to remove contaminants. The use of HEPA and Carbon filtration has been shown to decrease and at times eliminate airborne virus particulates.

Generally, the top-end HEPA and Carbon portable air purification machines (for example, the Dyson TP04 or DP04 and the BlueDri BD-AS-550-BL) can clear the particulate matter to within 0.3. The Coronavirus and others are as small as 0.1 - so they are small enough to escape. Through Brownian motion, it has been found that the particulate matter can get caught in the filters thus capturing up to 0.1

When used properly, air purifiers can help reduce airborne contaminants including viruses in a home or confined space. <https://www.epa.gov/coronavirus/will-air-cleaner-or-air-purifier-help-protect-me-and-my-family-covid-19-my-home>

- **Brownian motion:** All airborne particles experience Brownian motion. Some of the nanoparticles will collide with a fiber as they diffuse and be removed from the air flow. The Brownian motion increases as particle diameter decreases, and the capture of particles by diffusion increases as particle size decreases.
<https://www.sciencedirect.com/topics/engineering/airborne-particle>
- **Bioaerosols:** are infectious viral particles that float or drift in the air. Bioaerosols are emitted by a person infected with coronavirus - even one with no symptoms - through talking, breathing, coughing, or sneezing. Aerosolized coronavirus can remain in the air for up to three hours.
- **Particulate Matter** (particles in the air) can be solids (dust) or liquids (drops of water). Common sources of particulate matter are car exhaust, smoke from coal-fired power plants, pollen spores, and dust from construction sites.
<https://www.health.harvard.edu/diseasesandconditions/coronavirusresourcecenter#:~:text=Aerosolized%20coronavirus%20can%20remain%20in,up%20to%20three%20hours.>
- **Filters:** There are two basic types of air filters: filters for solids and filters for gaseous particles. Both types have the same objective, to reduce the concentration of airborne particles <https://www.afprofiters.com/the-principles-of-air-filtration/>
- **HEPA** stands for **High-Efficiency Particulate Air**. A HEPA filter is a type of mechanical air filter that works by forcing air through a fine mesh, trapping harmful particles such as pollen, pet dander, dust mites, tobacco smoke, and other allergens (such as mold).
- Both HEPA filters and packed beds of granular material, such as activated carbon, which are both commonly employed for removing nanoparticulate contaminants. When used alone, HEPA filters provide superior performance for removing virtually 100% of particulates.
<https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20170005166.pdf>
- **Carbon Filters:** Activated carbon has special properties allowing removal of volatile organic compounds (VOCs), odors, smoke, fumes and other chemicals and gaseous pollutants from the air.

A Person Designated by the Department Head(s): The duties of disinfecting the tools, equipment, kits and work stations of employees in the Make-Up and/or Hair Styling Departments are bargaining unit work and within the exclusive work jurisdiction of such classifications. To effectuate the appropriate division of duties given the constraints and requirements of any given work location and attendant circumstances, the determination of a person to be designated by the Department Head(s) – for example, “a person... to be stationed outside the workspace to assist with all guidelines and guard personal items on the table” – such designation shall not be made until there has been a discussion among the Department Head(s) and the Producer concerning the identify and job classification of such person — for example, Make-Up Artist, Hair Stylist, Assistant Director (AD) or Production Assistant (PA). If such person so designated is not a Make-Up Artist or Hair Stylist (as appropriate), such person shall not perform, and the duties of such a person shall not infringe on, the duties of a Make-Up Artist and/or Hair Stylist.

Alcohol: 99% & 70%: It’s an understandable confusion that since 99% contains more alcohol than 70% it must, therefore, work better as a disinfectant. This is incorrect. This concentration of IPA (Isopropyl Alcohol) is not used as a disinfectant, but as a solvent or cleaning agent for industries that produce products that are sensitive to water.

Between the concentrations of 60% and 90%, Isopropyl alcohol is very effective against microbial bacteria, fungi, and viruses. Higher concentrations don’t work as well because there has to be a sufficient presence of water in the mix to be effective. A mixture of 30% water with 70% IPA works best but once the alcohol concentration drops below 50%, usefulness for disinfection drops sharply. 70% IPA solutions penetrate a microorganism’s cell wall more completely, permeating the entire cell, where it coagulates all proteins, and the microorganism dies. The extra water content also slows evaporation, therefore increasing surface contact time and enhancing effectiveness. Concentrations over 91% coagulate proteins instantly so that a protective layer is created which protects other proteins from further coagulation, and this allows the microbes to remain in a dormant stage.

- The recommended contact time for 70% Alcohol is ten (10) minutes.

Break From Wearing Face Masks: Under certain conditions – medical or respiratory issues, climate or high temperatures, etc. – Artists may require periodic breaks from wearing a fabric or manufactured mask, due to reduced oxygen while wearing for extended periods. Please be guided by individual mask manufacturer’s instructions for proper use.

CaviCide, OptiCide: These are both hospital grade sanitizers used to clean dental equipment, veneers and impression models/forms. Not to be used directly in the mouth; equipment must fully dry and be rinsed with water before use in the mouth. These products can damage alcohol-sensitive equipment and some acrylic dental appliances as they contain some isopropanol.

Cleaning: Cleaning does not mean the same thing as disinfecting. **Cleaning always precedes disinfecting.** Examples of cleaning would be:

- Washing with soap and water
- Using a chemical degreaser

These procedures prepare an item for the next step - which is disinfection. Germs and pathogens can hide under surface dirt so that any residue on tools or surfaces may cause disinfecting to be ineffective.

Clean room: This term generally refers to a facility used as a part of specialized industrial production or scientific research. For the purpose of this document, the term is meant to specify a designated space or a controlled environment kept free from contaminants and as disinfected as possible to prevent transmission of Coronavirus or other pathogens.

Clean table: A work table divided by a tape line down the center. One side labeled “contaminated” and the other side labeled “disinfected.” Items are placed on one side, and as they are disinfected, they are placed on the other side. This is a system commonly used in the food safety industry.

Contact time: This refers to the amount of moist contact between a disinfectant and the (metal, plastic, glass, etc.) surface, as required to be effective by the specific disinfectant utilized; Manufacturer’s instructions should be followed. For example, some wipes have a two-minute contact time, while some sprays have a three to five-minute contact time. Some chemical mixes for soaking require ten minutes (and remember to change immersion solutions daily). UV-C disinfection also has a contact time.

Cross-contamination: This term means the inadvertent transfer of bacteria or other contaminants from one surface, substance, etc., to another - especially because of unsanitary handling procedures. To ensure pathogens are properly killed and to reduce the risk of being transferred, all work surfaces, equipment and utensils need to be cleaned and disinfected before and after *each task*. Cross-contamination is equally possible with either hands or gloves. What is important to understand is that every touch with hands or gloves will pick up contaminants and deposit them, so picking up any item and then touching another item spreads the contaminants from the first to the second item, *regardless of wearing gloves*.

Disinfect: This is the key step with regard to Coronavirus and other pathogens. Disinfection means the destruction of germs and pathogens on all non-porous surfaces: counters, spatulas, mixing palettes, scissors, etc. All porous items are considered single use and should be discarded: nail files, cotton swabs, orangewood sticks, cotton pads, buffing pads or blocks, white sponges, etc. When completed properly, disinfection is effective against most pathogens that may pose a risk to anyone employed in a Film or Television production setting. Proper disinfection requires two (2) essential things:

- the correct chemical
- the correct contact times

Certain disinfecting solutions, such as a container of dilute Barbicide or other products commonly used by Artists, may have to be discarded and replaced daily, or throughout the day if they become contaminated sooner (cloudy solution or floating debris). Others, such as sprays and wipes may last longer. With all these products, read the label and use them as directed by the manufacturer. SDSs (Safety Data Sheets) must be available for all chemicals and products used in the workplace. All bottles containing mixed liquids, or decanted liquids to secondary containers, must be properly labeled with the contents and safety instructions.

Disposable Paper Cape: A lightweight, durable cape that can be discarded after use, such as those used in medical, dental and salon applications.

Electrolyzed Water: Electrolyzed water is an all-natural, non-toxic, and non-hazardous solution that can be used for disinfecting. As a disinfectant, it is a powerful oxidant called hypochlorous acid (HOCl) that is 100 times more powerful than chlorine bleach. Electrolyzed water is made by applying an electrical current to salt water, which splits the elements up into a strong detergent and a powerful disinfectant. A salt molecule is made up of the elements, sodium and chloride, and a water molecule is made up of hydrogen and oxygen. When an electrical current is applied to the solution, the molecules are broken apart and combined into two new molecules:

- **Hypochlorous acid** – This ingredient is as effective as bleach. This is actually the same substance your white blood cells produce to keep you healthy as your immune system's fighter. Really! Its gentleness & efficacy are what make it commonly used in wound, eye and veterinary care products. It's even approved for use in organic crop production.
- **Sodium hydroxide** – a detergent used at low concentrations in products like toothpaste and skin moisturizers, and at higher (more toxic) concentrations in conventional cleaners.

Vinegar, when added to the solution, lowers the pH (the acidity) of the solution so that the hypochlorous acid increases its disinfecting abilities. The result is a cleaner and deodorizer that's just as effective as conventional cleaners with no harmful chemicals, residues or fumes.

The downsides to this solution: 1) it isn't sold in stores, and 2) the solution isn't very stable; in a short time, electrolyzed water breaks back down into normal water, (about a week, lessening in strength a little every day). Therefore, we recommend that if Electrolyzed water / hypochlorous acid (HOCl) is to be used as a disinfectant in the workspace, a unit for its production be purchased – and these vary in price.

The technology for electrolyzed water has been around for a while and is used in many applications from medical offices to food washing and schools. In Japan, even sushi gets treated with this product since it is 100% safe and non-irritating. Even if it were accidentally ingested, it is harmless. Yet, it is 70-80 times more efficient at killing microbial pathogens than chlorine bleach. In the home, electrolyzed water (or more properly, hypochlorous acid) is useful anywhere you need a disinfectant but don't feel comfortable using a toxic chemical, like in the makeup trailer. HOCl is a neutrally charged molecule. Bacteria have negatively charged cell walls. Just like magnets, molecules with the same charge will repel each other. For example, the negatively charged molecule of bleach is repelled by bacterial cell walls. This is not the case with HOCl which is neutrally charged. HOCl easily penetrates bacterial cell walls. HOCl either oxidizes the cell walls killing the bacteria or enters through the cell walls and destroys the vital components inside the bacteria. Study results indicate that HOCl is more effective than chlorine bleach for killing microorganisms. These results have been confirmed by several researchers that concluded that HOCl is 70 to 80 times more effective than chlorine bleach for inactivating bacteria. Since 1986, there have been hundreds of publications confirming the superiority of HOCl over bleach for two reasons: first, because it holds a neutral charge and therefore can easily penetrate the negatively charged cell walls of bacteria and second, because HOCl has a much higher oxidation potential than bleach. <https://www.hypochlorousacid.com> <https://www.ecoloxtech.com>

Electrostatic Sprayer: The spray unit uses a disinfecting solution that is turned into a mist, capable of eliminating all bacteria and viruses from any hard surface it touches. Electrostatic sprayers work by charging liquids (i.e., disinfectants) positively as they pass through a sprayer nozzle. The positively charged droplets repel one another and actively seek out negatively charged environmental surfaces where the mist latches onto those surfaces, including those which can't normally be reached (under a chair or behind a shelf). Electrostatic sprayers are already in use for cleaning schools, casinos, airlines, restaurants, hotels and office spaces.

<https://techprisesafety.com/>

Face Shields & Safety Goggles: A face shield should cover the forehead, extend below the chin, and wrap around the side of the face. Face shields are intended to protect the entire face or portions of it from impact hazards such as flying fragments, large chips, and particles. Face shield windows are made with different transparent materials and in varying degrees or levels of thickness. These levels should correspond with specific tasks. Window and headgear devices are available in various combinations to enable the worker to select the appropriate equipment, for example, Face Shields may be used in combination with Safety Goggles. Safety Goggles are the only PPE which provide adequate protection against harmful dust and airborne particles as they form a protective seal around the eyes.

Gloves: Despite common belief, gloves are not any more effective in fighting cross-contamination than proper hand-washing. Gloves are not recommended for general use because they may lead to a false sense of security and may actually increase risk, particularly due to self-contamination while doffing. Gloves are not required for Artists except for specific tasks or if requested by a Performer. Nitrile Disposable Gloves are the most durable in keeping away any contact with your own skin, and the strength of the material helps prevent perforations in the gloves. Wearing gloves does not prevent cross-contamination, they only prevent external elements from touching the wearer's skin. The **Local 706 COVID-19 Safety Task Force** recommends that constant and diligent hand washing is the best approach for disinfecting hands throughout the day.

Hand hygiene and disinfecting procedures: Most viruses are transmitted through the air in virus-laden droplets propelled by coughs and sneezes - and our hands can pick up these droplets from any number of surfaces. Hand washing has been the main part of flu-prevention for decades. In studies, washing hands with soap and warm water (not hot, it's more damaging to the skin) for 20 seconds (as long as it takes to sing 'Happy Birthday' or 'Twinkle, Twinkle, Little Star'), will reduce bacteria by about 90% Add another 10 seconds and bacterial counts drop to 99%. Too frequent hand washing – even with mild soap – can damage skin, causing cracks that can harbor even more bacteria. Dry, damaged skin may spread germs more easily, especially if skin is flaking so hands must be moisturized frequently. Hands should be washed or sanitized:

- Upon arriving at the job site
- After using the restroom
- Before and after eating or drinking
- Before and after handling equipment or objects
- After handshaking, hugging, or otherwise having physical contact with others
- Before and after disinfecting equipment, tools or workspaces
- At other appropriate times throughout the workday
- Before and after a task or service on a Performer
- After blowing one's nose, coughing or sneezing
- After contact with animals or pets

Hand Sanitizers: Quick hand disinfectants are already a standard part of every Artist's kit. In order to disinfect, the product must contain a minimum of 70% Isopropyl Alcohol or 60% Ethanol. Alcohol's killing power comes from its ability to change the shape of proteins (denature) crucial to the survival of bacteria and viruses. In trials, alcohol-based cleansers have reduced bacterial counts on hands better than plain and antibacterial soaps. But alcohol doesn't kill everything: bacterial spores, some protozoa and certain "non-enveloped" viruses aren't affected. It's also important to remember that soap and water also rinse things off your hands where hand sanitizers don't remove anything from the skin so the best approach is a combination of techniques and products. To be effective, alcohol-based rubs need to come into contact with all the surfaces of the hands – back, front, between fingers, and so on. Studies show that using small amounts of product is really no better than washing with soap and water. However, the results improved considerably when double the amount of hand sanitizer than normal was used (1.75 ml to 3.5 ml) combined with the standard handwashing steps, which were designed to maximize coverage regardless of the type of cleanser.

Holding Table: A utility table for placing items to be left outside the workspace (trailer or room) Clean Room environment. This table should be periodically disinfected, but is not the same as the Clean Table

Last Looks: It is important to distinguish the terms "Last Looks" from its associated term "Touch-ups" – they are not the same. Last Looks are called after the shot has been set and rehearsed and just before the camera rolls. The intent is to provide *all Crafts*, from Makeup and Hair Artists to Costumes, Props, Set Dressing, Camera, etc. to do a final check of their required tasks before the camera rolls. If proper time for touch-ups has been provided during the crew working time, then Hair and Makeup Last Looks may involve casting a simple eye over the Performer, depending on the complexity and exact circumstances. In cases where touch-up time has not been allotted, the Last Look time may need to be extended.

Load In: To allow for proper outfitting, cleaning and disinfection, each existing workspace that was occupied by Artists will need to be emptied well in advance of any renovation. A schedule shall be made to enable the affected Artists to individually, with appropriate social distance, empty all equipment and supplies in a timely and safe manner from such spaces. Adequate time shall be allocated in advance of all production related work, depending on equipment, supply chain availability and size of show in prep or returning from hiatus. Pre-prep shall be supervised by Departments Head(s).

- All trailers or "lunchboxes", tents, stages, pre-production fittings and on-set makeup and hair areas will need to be externally and internally outfitted/renovated as needed.
- Load-in time to these areas should allow for implementation and adaptation of new safety guidelines.
- These measures should be taken well in advance of what we in the past considered "normal" prep; script breakdown, makeup and hair meetings, fittings, scheduling, camera tests, etc.
- Any pre-work-day contact between Artists and Performers (fittings: prosthetic, wig or contact lens fittings, haircuts, makeup or hair tests, etc.) must take place in a workspace properly prepared as per the clean room guidelines.

- Time shall be allowed for the purchase, replenishment and/or re-fabrication of any damaged supplies, equipment, wigs, prosthetics and/or contact lenses.
- Certain trailers may have to be switched to larger trailers, or several smaller trailers to accommodate social distancing guidelines.
- Time shall be allowed for affected Artists to apply OSHA compliant product labeling, supply and equipment containment and the reinstatement of the approved methods of distributing materials between Artists and Performers.

Masks & Respirators: All masks of whatever type must fit tight to the face and either have straps or ties to ensure a good fit.

- A **Face mask** is a loose-fitting mask that covers the nose and mouth area. Typically, they have ear loops or ties that can be used to hold the mask in place.
- **Surgical masks** are barriers that provide the wearer protection against large droplets, splashes, spit sprays or mucous and usually do not fit tightly to the face. Most surgical masks do not effectively filter small particles from the air, do not prevent leakage around the edge of the mask when the user inhales or exhales, are not considered respiratory protection and are not NIOSH approved apparatus. Surgical masks are not designed for use as particulate respirators.
- **Respirators** are designed to seal tight to the face of the wearer and are designed to protect from exposure to airborne particles. There are three distinct categories; disposable, reusable or elastomeric respirators (half/full face), and Powered Air Purifying Respirators (PAPRs). Each respirator, when properly fitted, donned and used properly, will create a facial seal with minimal leakage providing two-way protection- filtering the air entering and exiting the wearer at a level of efficiency designated by the respirator.

<https://www.cdc.gov/niosh/npptl/pdfs/UnderstandDifferenceInfographic-508.pdf>

In healthcare, certain respirators are specifically designed to protect from exposure to biological aerosols, including viruses and bacteria. The disposable N95 medical grade respirators are what the CDC recommends to protect against aerosolized germs like Coronavirus.

https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource3surgicaln95.html

- 3M N95 Face Mask - The difference between the N-series, R-series, and P-series of masks is graded upon whether or not the mask will be worn in an environment where oils and their vapors can be inhaled. This rating is important because oil aerosols can degrade the performance and efficiency of the respirator's filter media by removing electrostatic charges. Electrostatic charges between the layers of filter media act as a magnet and help trap airborne particles.
- N-series filters are not resistant to oil. R-series filters are resistant to oil. P-series filters are oil proof. The respirator filter ratings (95, 99, 100) refer to the percentage efficiency at removing particulates from breathing air. 95=95%, 99=99%, 100=99.9%. Each manufacturer indicates a model number which corresponds to what type of particulates it protects against. E.g. 3M 8511 is made for painting & sanding. It is N95 (certified by NIOSH) which means it will filter out 95% of non-oily painting and sanding particulates but does not protect against airborne bacteria and viruses. Respirators needed to filter bacteria & viruses as small as 0.3 microns would be of medical or surgical grade (as indicated by the manufacturer's model number) and approved by both NIOSH & FDA. Note that N, R, and P respirators with exhalation valves should not be used when protective

conditions are needed for others sharing the same airspace as the wearer. Respirators WITHOUT valves protect both the Performer and the Artist.

https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/n95list1.html

- Surgical masks and disposable respirators may be safely discarded by placing in a plastic bag and treated as ‘hazardous waste’. Hands are to be washed after handling any respirator.
- Ideally, N95 respirators and surgical masks should be discarded after each actor and after aerosol-generating practices. They should also be discarded when they become damaged or deformed; no longer form an effective seal to the face; become wet or visibly dirty; breathing becomes difficult; or if they become contaminated with blood, respiratory or nasal secretions, or other bodily fluids.
- In the circumstance that the N95 respirator is of limited availability, CDC guidelines recommend a combination of approaches to conserve supplies by extended use/limited reuse of N95 Filtering Face-piece Respirators

<https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>

- According to Johns Hopkins School of Public Health, several decontamination methods have been proven to disinfect masks and respirators for reuse. Heat treatment (70°C for 30 min), UV-C radiation, and treatment with hydrogen peroxide gas have been shown to disinfect masks. Another way to safely reuse masks and respirators (both N95 and surgical masks) is to assign seven of them, one for each day of the week, to those Artists who can reuse the same mask or respirator throughout the day. At the end of each day, each mask or respirator is stored in a separate breathable paper bag at room temperature. Write the name and date on each bag to keep track of time in storage. Wait at least 7 days before reusing the same mask. Time will deactivate the virus between uses.

<https://www.jhsph.edu/research/centers-and-institutes/johns-hopki>

<https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-education-and-research-center-for-occupational-safety-and-health/extending-the-lifetime-of-n95-masks>

As proper PPE may not be available at the time we return to the workplace, (due to shortages and preferential need by the Medical Profession), surgical masks would be the next best option. Multi-layered cotton cloth masks would be used as a last resort. **Cloth masks are not considered PPE**, since their capability to protect is unknown. Caution should be exercised when considering this option. Homemade masks should ideally be used in combination with a face shield that covers the entire front (that extends to the chin or below) and sides of the face. If these are used, each Artist must have several of these masks in order to wash them and alternate them each day.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html>"v/hcp/ppe-strategy/face-masks.html

Nasal Filter: A nose filter or nasal filter is an air filter designed to fit inside the human nostrils to prevent inhalation of allergens, pollutants, and irritants such as dust, smoke, and foul odors. They are generally not intended for protection against toxic or injurious materials such as asbestos.

<https://www.o2nosefilters.com>

https://www.o2nosefilters.com/cold-flu/?gclid=CjwKCAjwL2BRA_EiwAacX32fqt03xPNUsKFGR1L31iwGtUmWjianmCfDd1XM-IVrYxZ92bbYt4EhoCg6IQAvD_BwE

PPE: Personal Protection Equipment encompasses specialized clothing or equipment worn for protection against health and safety hazards. Personal protective equipment is designed to protect many parts of the body, i.e., eyes, head, face, hands, feet, and ears. The different types of PPE include face shields, gloves, goggles and glasses, gowns, head covers, masks, respirators, and shoe covers to protect against the transmission of germs through contact and droplet routes.

Portable hand washing stations: A Portable Hand Washing Station is a portable sink. It usually features soap dispensers, paper towel dispensers, and operates hands-free with a foot pump. There are countertop versions as well as full standing versions.

Prosthetics: All Makeup related items pertaining to pre-made and out-of-kit applications made to a Performer, including but not limited to those made from, Silicone, Foam Latex, 3D Prosaide Transfers, Rubber, Acrylic or Plastic.

Smocks: The use of aprons, smocks or washable coats is recommended. For best contamination control there should be one (1) for each environment (I.e., one for the trailer and a second for the set). Cloth items should be washed daily so it is advisable for each Artist to have several. Disposable Sleeve Aprons, Disposable Barrier Gowns may also be an option but increase waste and may be better prioritized for the medical field.

Time Estimates: Estimates may be determined and codified once all guidelines have been tested and timed. It may be determined that additional Artist(s) are needed to assist with the disinfection process; Artists may be called and/or wrapped in staggered shifts to maximize efficient physical distancing, and minimize numbers in a given workspace. The **Local 706 COVID-19 Safety Task Force** suggests that every Artist shall have adequate and sufficient time to set up and wrap down their workspace(s).

Touch-ups: As opposed to a Last Look, a touch-up is part of the required maintenance and upkeep of Make-up and Hair. Touch-ups may vary in length between 5 to 20 minutes. During this time, makeup which has faded, smeared or has been interfered with in some way is corrected and re-applied; natural shine is controlled; contact lenses may require eye drops; hair may have fallen out of place; prosthetics may have become unglued or torn and require repair, and so on. Touch-ups may be done on stage or in the trailer, but they should be arranged to be completed before the camera is ready and the Performers are called to set. In this way, last looks can be quick and simple, or even passed on if no further or last-minute work needs to be done.

UV-C: UV light has been a standard method of disinfecting in the medical and dental fields since the mid-20th Century. Ultraviolet light is electromagnetic radiation with wavelengths shorter than visible light but longer than x-rays and is categorized into several wavelength ranges.

- **UV-A:** a long wave light. Accounts for 95% of the UV radiation that reaches the Earth. Used in tanning beds and penetrates the skin's second layer. Not recommended for disinfection.
- **UV-B:** a chief cause of skin reddening and sunburn. Damages the skin's top layers. Not recommended for disinfection.

- **UV-C:** the shortest of all UV rays. It never reaches the Earth because it is absorbed by the ozone layer. Short-wavelengths between about 200 and 300 nanometers (billionths of a meter), are categorized as germicidal – meaning they are capable of inactivating microorganisms, such as bacteria, viruses and protozoa. This has allowed the widespread adoption of UV-C light as an environmentally friendly, chemical-free, and highly effective way to disinfect and safeguard against harmful microorganisms, particularly in water and also in air conditioning units.

The downside to UV-C involves safety issues: skin exposed to germicidal wavelengths of UV-C light can develop rapid sunburn and skin cancer. If your eyes are exposed to UV-C radiation it can produce extremely painful inflammation of the cornea and temporary or permanent vision impairment, up to and including blindness in some cases. UV-C can damage the retina of the eye.

UV-C light kills or inactivates microorganisms by destroying nucleic acid and disrupting the organism's DNA, leaving them unable to perform vital cellular functions. This process is similar to the way longer UV wavelengths from the sun that make it through our atmosphere's protective layer can cause sunburn in humans, but microorganisms have less protection against UV and cannot survive prolonged exposure to it.

The effectiveness of germicidal UV-C depends on the length of time a microorganism is exposed to it, the presence of particles that can protect the microorganisms from UV-C, (remember from above that items need to be cleaned before they are disinfected) and a microorganism's ability to withstand UV-C during its exposure. The light's killing power decreases with distance from the light source. Using a standard American Ultraviolet Germicidal Fixture, the average bacterium will be killed in ten seconds at a distance of six inches from the lamp.

UV-C Box & UV-C Wands: With the arrival of the novel Coronavirus, the market has been flooded with UV wands, bulbs, boxes and mini lights. A 2014 study in the *American Journal of Infection Control* found that a portable wand killed 100% of several types of bacteria commonly found on surfaces after just five seconds, and inactivated 90 percent of especially hardy spore-forming bacteria after 40 seconds. According to the researchers, a UV-C device is a reasonable alternative to using chemicals to disinfect surfaces, but more studies are needed to see if the wands are safe, practical, and reliable.

As for the use of these devices for the Makeup Artist, they may be used - but not exclusively. A box-style UV-C unit is effective for disinfecting all tools: spatulas, scissors, tweezers and the like. A wand style UV-C device is a great and quick adjunct to keeping the station disinfected – although you have to keep in mind that where the light doesn't shine it has no effect – such as within the fibers of a brush, for example. Line-of-sight exposure of the microorganisms to the UV-C light means that the phone disinfection box with a UV-C source in the lid, or even the sides, will not disinfect the back of your phone unless you turn the phone over and repeat the exposure, although some box units use mirrors or shiny metallic surfaces to reflect the light around, however, the better-quality brands are constructed with this issue corrected. There are slightly larger versions than the phone disinfecting boxes also.

Stand lamps can be used with caution, since the bulb is exposed all the way around, making them dangerous to use if any people are around. These devices may be used in the makeup trailer – activated at night, for example, and with the understanding that they are only an adjunct to the process of disinfecting since the light won't reach all surfaces in a room.

Water Treatment System: A water treatment is any process that improves the quality of water to make it more acceptable for a specific end-use. The end-use may be drinking, industrial water supply, irrigation, river flow maintenance, water recreation or many other uses, including being safely returned to the environment.

A UV-C LED water treatment unit is recommended to be installed in workspaces – especially trailers - for water disinfection.

Workspace: By definition, a workspace is a space used or required for one’s work. For this document, a workspace is defined as a room, trailer, or other area designated for the sole use of the Hair and Makeup Artists in which to perform their jobs. The guidelines outlined in this document are intended to allow the Artists to create a Clean Zone or Clean Room in their workspace that is as environmentally safe for both Performers and Artists, whose jobs require closer contact than social distancing suggests. If the workspace is not confined to a room with a defined border, then an area should be marked using a tape outline in order to clearly delineate the borders of the clean zone.

The IATSE Local 706 COVID-19 Safety Task Force:

Howard Berger Kate Biscoe Polly Lucke Todd McIntosh

Stacey Morris Justin Raleigh Randy Sayer Julie Socash