



# Cleaning Brochure

With reference to Sars-CoV-19 (Coronavirus) & Covid-19

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## Disclaimer

**This document aims to be a tool to inform and give practical guidance on cleaning methods in Costume departments, with particular reference to Sars-CoV-2 (Coronavirus). We are not scientists but have gathered research together to present practical ideas and ways of cleaning and maintaining costumes and accessories.**

**In laying out the available options we cannot recommend one method over another - it is up to each company or person to utilise what they think is most appropriate, based on their particular needs.**

**Please see research papers in the links for full source lists and further reading.**

**We do not accept any liability for the procedures and products mentioned within.**

## Our Aim


In this brochure we give an overview of different methods of cleaning costumes and accessories and provide a list of potential suppliers. Our document is intended as helpful guidance to the current methods and products available to you. It is a living document and will be updated as further research and products become available.

We are indebted to the team at First Option (including a microbiologist) for their help in compiling this brochure.

## Information on Sars-CoV-2 (Coronavirus) and Covid-19

Sars-CoV-2, the virus that causes Covid-19, is primarily transmitted between people through respiratory droplets. These droplets can fall to the ground or on to surfaces under gravity. They tend not to travel far depending on droplet size and other factors - sneezing, shouting or singing will carry them further - but they are unlikely to carry more than 1-2m unless caught in a draught.

It is possible to catch Covid-19 from touching these invisible droplets on a surface and then touching your nose, mouth or face, but this is relatively rare.



It is also true that the virus can remain viable on a surface for some time but this depends on many factors: the type of surface, humidity, temperature etc. but at the most this is a day or two - many of the studies into this were looking for traces of viral genetic material (RNA) which is very different thing to finding virus capable of causing an infection.

A far more common spread is from breathing in these tiny respiratory droplets by being in close proximity with someone with it and breathing in the same air. Obviously the more time you spend in close contact, or in a close conversation, the higher the risk - you need to inhale a fair number of virus particles to become infected.

This is why distancing is so effective: a physical distance of 1m decreases risk of infection by 82%. The absolute risk of infection from an exposed individual falls to 2.6% at 2m.

Remember that, on average, someone who is infected will be exhaling virus 2-3 days before symptoms start, which is why wearing a mask decreases the risk you might pass it on if you are asymptomatic but infectious.

**Therefore, the main methods of preventing the spread of infection are distancing, thorough hand hygiene and extensive cleaning measures.**

The Likelihood of catching Sars-CoV-2 (Coronavirus) and developing Covid-19, where no control measures are in place, is very high. As a department we are at medium to high risk of exposure to the virus due to our close work with others. Therefore we need to be very stringent following the rules.

Sars-CoV-2 is part of the coronaviridae family and is an 'enveloped' virus. This means that there is a lipid membrane around the virus cell which protects it as it travels about. This lipid membrane is sensitive to tensides (soap, detergents etc.) which rupture the membrane and allow the detergents to complete their work - dissolving and entrapping the virus in the suds, to be washed down the drain.

This is why good hand hygiene is paramount in lowering transmission as it is primarily spread through contact transmission - hands to face. The World Health Organisation has some great graphics on how to wash and sanitise hands properly which can be downloaded and printed<sup>1</sup>.



## Hand Hygiene

Soap and water is always best. Pay particular attention to tips of fingers, between digits and thumbs.

Ensure hands are thoroughly dry.

- When arriving/leaving the workplace
- Before and after touching any costumes, using shared equipment, attending fittings etc.
- Before and after putting on/taking off PPE (mask/visor/gloves)
- On set - before and after doing checks AND between different cast
- Before and after eating, using the honey wagon etc.

**If hand washing is unavailable** hand rub gels or foams should be used. These can be alcohol-based (60%+ IPA/propan-2-ol or 70%+ ethanol) but non-alcohol alternatives are available - look for the designation **EN1500** on the label.



## Cleaning your workspace

Production should provide an enhanced cleaning service on your return to work, and for the foreseeable future. However, you also have the responsibility to maintain your department.

To keep all members of the department safe everyone should take responsibility in disinfecting shared surfaces after use.

There are many 'spray and wipe' disinfectant/sanitiser products that clean and kill in a single action (no need to clean a surface with detergent first then disinfect as a separate action).

<sup>1</sup><https://www.who.int/gpsc/5may/resources/posters/en/>

Look for the designations **EN1276**, **EN 14476** or **EN13697** on the label (this means the product will kill COVID). Always follow the manufacturers' instructions regarding dilution and dwell time.

Scissors and other full metal items such as safety pins can be cleaned in this way too, as can irons, steamers, sewing machines and other similarly shared equipment. Spray and wipe with blue roll or other disposable paper. Try to avoid using cloths - if you absolutely have to - use once and then wash at 60° & dry thoroughly.

## QUARANTINING

The virus is highly unlikely to remain viable on fabric for very long and will be rendered ineffective by laundering or dry cleaning.

If that is not possible ie. new purchases, and you wish to exercise an abundance of caution you may choose to quarantine items for **48 hours**.

Ensure thorough logging, tagging and dating for good practise.

Quarantining is not necessary once you have established costume. As long as rigorous hand hygiene is followed and good washing is facilitated you will maintain the isolation of cast costume. **Maintain the isolation/cohort of those who handle the cast costume to fulfil protocol.**

## WASHING & CLEANING COSTUME AND ACCESSORIES



### Regular washing

Washing is considered to be the best method of cleaning potentially contaminated clothing as it is based on the same principle as washing hands with soap - the detergent and the mechanical action ruptures the lipid membrane and rips the virus apart.

## Machine washing -

Using a regular detergent and washing on longer cycles at an appropriate temperature is preferable.

High temperature washing is not really necessary for coronavirus - the detergent alone will deal with it if it is present. A 60° wash from time to time is good general hygiene practice anyway.

Items from different cast members can be washed together as the process of washing rids the pieces of all contamination at the same time.

## Hand washing -

Soaking (for 30 minutes) and washing in a warm soapy solution is an effective way to destroy the virus.

When handling washing, especially cleaned items, please adhere strictly to hand hygiene procedures to avoid (re)contamination.

Make sure all items are thoroughly dry before use.

**Ensure correct disposal of waste (ie. check facilities have directed the truck waste appropriately and it's not crossing the unit base) and run washing machines on a HOT cycle (60°) at the end of the day (if it hasn't been done during the day) to remove residue.**

## Dry Cleaning

Is a good option if you have the time and money. All American rentals require this step on return anyway (top budget brackets).



## Heat & Hot Boxing

Not suitable for all garments and accessories.

Like chemicals, heat kills germs too. Different germs need different temperatures and times.

Hot boxes often are, or can be, built into trucks and locations (could be worth the investigation).

Most hot boxes run at 60°. At this temperature we recommend **2 hours** (the time needed at 60° to kill the virus is a lot less than this but that's in a test tube in a lab). You need to allow time for the whole garment(s) to heat through. If it's a large box or you have many garments you may choose longer.

When using an iron make sure to cover all areas for a good amount of time (without damaging the fabric). This should include the seams and especially areas that come in close contact with face, nose and mouth.

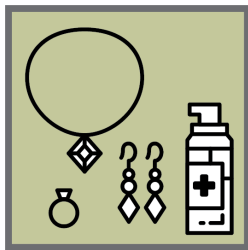
Regularly wash and alternate the cover of the ironing board.



### Steam

Steam is used to sterilise surgical instruments - but this is superheated steam in a pressure oven.

You cannot rely on steam alone when disinfecting garments.



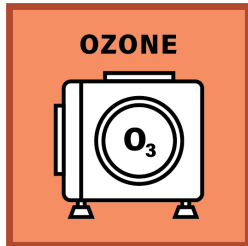
### Cleaning Jewellery and Accessories

If you can't clean jewellery and accessories with an EN1276 sanitiser, spray them with or soak them in alcohol (IPA).

Shoes and handbags should be treated according to their fabric and manufacture. Clean items as you would according to the manufacture and disinfect with solutions and processes **if** further steps are required. You will probably require a combination of techniques.



## OTHER PROCESSES FOR DISINFECTION - CAUTION ADVISED



### Ozone

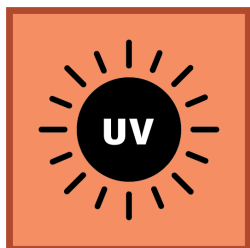
Some theatrical dry cleaners (such as Upstage in London) and some Costume Hire Houses have already been using Ozone (pre Covid-19) to treat costume for spores, moths and bacteria.

We have taken the decision, after consultation with First Option, to rescind our suggestion of the use of Ozone cabinets. Their advice included the following information -

Ozone represents a serious hazard in the workplace and needs to be carefully risk assessed.

The challenge with ozone is while **aqueous** ozone has been shown to be an effective means of disinfection and has been used for decades (for example, in water purification) **gaseous** ozone does not have the body of scientific literature behind it, supporting its use in disinfection. There are plenty of claims made by manufacturers of ozone cabinets but relevant studies in peer-reviewed journals are all but non-existent.

Because of the lack of scientific proof of its effectiveness we do not recommend using ozone as your sole disinfection strategy. You must also seriously consider the workplace risk. Most cabinets run at at least 100x the Workplace Exposure Limit for ozone.



### UV

There are different forms of UV radiation that you might be familiar with:

- UV-A (black light)
- UV-B (which causes sunburn)
- UV-C (for disinfection)
- UV-C-VUV (ozone formation)

UV-C is effective at killing microorganisms but it has its limitations. Due to its short wavelength, UV-C only reaches the top of the surface, it does not permeate thick fabrics, which means the inside has to be treated separately. As it breaks down organisms it can damage fabrics, break-down and dyes too.

We have taken the decision, after consultation with First Option, to rescind our suggestion of the use of UV. Their advice included the following information -

The challenge with UV is the wavelength and intensity needed to guarantee it will kill harmful organisms also means that people cannot be near it - it will cause severe skin and eye damage. Systems used for air or hospital disinfection are sealed units and great efforts are made to ensure it is used safely.

**A hand held UV 'wand' or similar will not have the 'fluence' (technical term) to kill harmful organisms.**

We recommend UV should not be the mainstay of your disinfection strategy.



## Personal Protective Equipment (PPE)

As a department we will return to work under the "Close Contact Services" area of the UK Government Guidance<sup>2</sup>. When working in close proximity the wearing of a mask and/or visor is to be recommended. These should be provided by production, or if you prefer to source your own the costs should be reimbursed.

With all PPE please consider the sustainability of your choices.

## Visors

Visors offer an alternative to wearing masks as current government guidance (see footnote) states the following -

Visors must fit the user and be worn properly. It should **cover the forehead, extend below the chin, and wrap around the side of the face**. There is no requirement for the client (ie. colleague/actor) to wear any additional protection

<sup>2</sup> <https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19/close-contact-services>

such as a mask or face covering, when the practitioner (ie. you) is wearing a visor. **There is no benefit to either the client or the practitioner of wearing additional PPE to that which they would usually use, beyond the clear visor mentioned above.**

Both disposable and reusable visors are available. A reusable visor must be cleaned and sanitised regularly using normal cleaning products.



## Masks

Masks come in different models, each with their own limitations. All surgical masks and respirators should have the CE quality mark.

**Community/non-medical masks** - Usually made from layers of cotton, can protect others from the wearer. To be washed at minimum 60°, changed regularly when moist and always after 4 hours.

**Surgical masks** - offer wearer protection from larger droplets as well as protecting others. Recommended 15 minute 'fresh air' break every 90 minutes. Single use only, treated and discarded as 'contaminated' waste. Not washable.

**FFP2/N95 respirators** (without ventilator) - are most effective at protecting the wearer and others from fine aerosols. Use when in close proximity for longer than 10 minutes at a time ie. during fittings. Single use only, treated and discarded as 'contaminated' waste. Ideally should be worn for a maximum of 95 minutes (and preferably less than 75 minutes) before taking a 30 minute 'fresh air' break.

Consider the task -

**Working in a cohort on the truck only** (minimal risk of exposure to few people)

- Visor only
- Community/Surgical mask only

**Putting out costumes** (small chance of encounter with others for short time)

- Visor or Community/Surgical mask - maintain distance

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**During checks with actors** (who won't be wearing a mask; for prolonged exposure to others) - how long will you need? Are you checking more than one artist?

- Visor and/or mask
- Any checks lasting over 10min should always be Visor + FFP2.

Find what works for you and adapt where necessary.

## Other PPE

### Gloves

Should be treated as hands in terms of hygiene. Latex/vinyl gloves can be kept clean with alcohol gels, saving the wearers hands. Ensure regular breaks from wearing non-breathable gloves. Consider rotating the use of washable (and breathable for the wearer) cotton gloves for certain tasks eg. handling clean costume. Good barrier creams should be used to protect hands from developing exacerbating skin conditions.

### Overalls/Workwear

A good option but not a requirement. Very good at reducing the contamination of one's own clothes and can be washed hot (60°) and rotated. Items should be removed at the place of work and preferably not taken home, or carried home securely in a bag and washed.

## Hazardous Waste

Ensure correct disposal of all hazardous waste - production should provide this service. Alternatively, it can be left 72 hours and disposed of as regular waste.

## SUPPLIERS

### Alcohol Free Disinfectants

<https://zoono.co.uk>

<https://www.sumawholesale.com/non-foods/household-cleaning-products/bio-d-hand-sanitizer-with-geranium-6-x-500ml-hj235.html>

<https://aihealthcare.uk/product/biosan-natural-antiseptic-and-disinfectant>

### Disinfectants & Hand gels: Alcohol based

[https://www.medisave.co.uk/soft-hand-gel-hand-sanitiser-500ml-with-pump.html?gclid=EAlaQobChMlzKe4jY6s6gIVjakYCh13OwPoEAAYASAAEgJMY\\_D\\_BwE](https://www.medisave.co.uk/soft-hand-gel-hand-sanitiser-500ml-with-pump.html?gclid=EAlaQobChMlzKe4jY6s6gIVjakYCh13OwPoEAAYASAAEgJMY_D_BwE)

### IPA (Isopropyl Alcohol)

<https://preciousaboutmakeup.com/collections/top-sellers/products/isopropyl-alcohol>

### Fabric Disinfectants

<https://www.reposefurniture.co.uk/fabric-options/shieldplus-liquid-solutions/>

<https://www.completecareshop.co.uk/kitchen-aids/surface-cleaners/sursol-fabric-%20disinfectant-spray>

### Antibacterial Laundry Liquids

<https://www.dettol.co.uk/products/see-all-products/dettol-antibacterial-laundry-cleanser-fresh-cotton/>

### Barbicide

<https://barbicide.com/covid-19>

### Visors

<https://www.reelbrands.co.uk/shop/PPE-c49445040> - Plastic free; bulk order

<https://portwest.co.uk/products/view/CV16/CLR>

<https://www.devondisabilitycollective.org/product/eye-protection-face-visor-shield-face-clear-full-length-elastic-foam-uk-supplier-manufacturer/>

### Masks



<https://chooseally.com> - Reusable masks with profits donated to the NHS

<https://emergencymasks.co.uk> - N95 reusable masks

<https://respirair.uk/shop/washable-coronavirus-barrier-mask-adult-size/> - Washable masks

<https://ffp3facemasks.co.uk> - FFP3 & IIR type masks