COVID-19 - GOOD PRACTICE GUIDE

for music stores / instrument making workshops

These recommendations are made on the basis of current knowledge and for the duration of the COVID crisis.

Edit 18 June 2020 - Sources: CSFI - ITEMM - Makers - Ministère du Travail (French Ministry of Labour)



Maintain a minimum distance of 1.50 m between people at all times.

Wearing a mask is compulsory in public transport and is recommended for any movement inside the shop / workshop as soon as there are several people.

This guide has been written under French national law related to Coronavirus crisis context. Therefore, it is important to adapt this guide's recommendations to the appropriate law in each country.



ALL KINDS OF BOWED STRING INSTRUMENTS ALL KINDS OF BOWS, ALL KINDS OF ACCESSORIES FOR BOWED STRINGS.

This guide brings together the recommendations necessary for the protection of employees, customer reception and proper handling of instruments, cases, accessories, packaging, tools...

This guide does not pretend to give an answer in this first version to all problems brought by the coronavirus crisis in relation to musical instruments in shops or workshops. These recommendations are made on the basis of current knowledge and for the time necessary to manage the COVID crisis. The updated version of this guide will be available

IMPORTANT REMINDER: This disinfection recommendations guide is to be applied only in case of doubt of contact with the virus. But beware of varnishes, and preferably contact your manufacturer / luthier and bow maker.

In the case of testing an instrument in store and workshop, if the musician washes / disinfects his hands well, that he wears a mask and that he washes / disinfects his hands again after the test, this greatly minimizes the risk of the virus being transmitted between the musician and the instruments.

I. General principles	рЗ
1/ Preamble	рЗ
2/ Products and processes	p4
3/ Rags and wipes	p5
4/ Quarantine	р5
5/ Masks	р6
6/ Sanitary product suppliers	р6
II. Bowed string instruments	p7
1/ Body and head	p7
2/ Neck	p8
3/ Fingerboard	р9
4/ Fittings	р9
5/ Strings	pl2
III Poraza	177
III. Bows	pl3
IV. Accessories	pl5

Edit 18 June 2020

2



1/PREAMBLE

Cases where there may be doubt about instruments / accessories contamination (these cases depend on whether you are a musician, a luthier or a store):

- On purchase, on rental
- During a repair
- After an exhibition / fair
- After a workshop or store test
- After loaning it, after a lesson, a rehearsal or a scene
- After transport
- After playing it without first washing / disinfecting your hands
- If a person touches the instruments or is nearby (<2m) and coughs, or speak

In all other cases, there is no need to disinfect. Cleaning and regular instrument / accessory maintenance, however, remains the right thing to do, in case of pandemic or not.

Good gestures: common sense gestures

- Before any disinfection, wash / disinfect your hands thoroughly and clean each instrument / accessory part with a dry, disinfected cloth¹.
- Above all, do not use paper material, such as a paper towel, which will scratch the varnish and which may leave lint.
- If it is possible to quarantine the instrument / accessory, this will greatly reduce the virus concentration, we recommend a period comprised between 6 and 9 days, because the virus survival depends on different parameters such as the material, its texture, the humidity and the presence of proteins and bio-film.
- Before applying any of the products listed below to the entire instrument / accessory, always carry out a test on part of it.
- Encourage the practice of the instrument and accessory during the store test or in rehearsal with a mask, at least surgical and hands washed and disinfected.

(1): Do not use a cloth more than once without disinfecting it with an effective product, either washed at +60°C for more than 30 minutes. Otherwise, throw it in an airtight container.



2/ DISINFECTANT PRODUCTS AND PROCESSES

The products below allow disinfection which will greatly reduce the concentration of viruses.

- Chlorine derivatives, such as bleach > 0.5 %. The value corresponds to the concentration of sodium hypochlorite. Generally it is found conditioned at 2.6 %. A common dilution corresponds to a dose of 2.6 % sodium hypochlorite product with 4 doses of cold water.
- Alcohol > 70° . Alcohol is a recognized virucidal product, the recommended alcohols are ethanol (the most common) and isopropyl alcohol. Their concentration must be 70° minimum (drugstores).
- Products meeting the standard EN 14476 (Sanytol®, Sani-Cloth®, Cleanisept®), generally, the active principle is hydrogen peroxide, chlorine-based derivatives or quaternary ammonium, pay attention to the protocol of use (contact time for example).
- 3 % hydrogen peroxide (or 10 volumes).
- Soap. On an instrument the soap cannot be applied with friction equivalent to that of the hands, nor with the same amount of water. It's probably not as effective when "put down" and wiped off and is not considered, here, as virucidal product.

Disinfection processes

We already see on the internet and elsewhere flourish some UV or ozone-based (gas or water-based) processes to disinfect musical instruments or other products. Caution should be exercised with regard to the health risks that could result from the use of these methods which are not certified by professional, scientific and independent groups.

- Ultraviolet. Ultraviolet treatments (UV-C only) have to be used with extreme care because they are harmful to the skin and the eyes and can produce ozone, which is toxic, in the air. In addition, these are not a guarantee of full effectiveness, especially when areas cannot be lit. It is important to take into account the UV-C lamp wavelength (220 to 280 nm), its power, its distance and the duration of exposure. Thus, considering the diversity of cases, it is hardly possible to ensure disinfection efficiency with this mean.
- Ozone in the gas phase can deactivate viruses, but at a high concentration which will be harmful to humans. Its use requires very specific knowledge and skills and is not particularly recommended to date. Considering the diversity of cases, it is hardly possible to ensure disinfection efficiency with this mean.



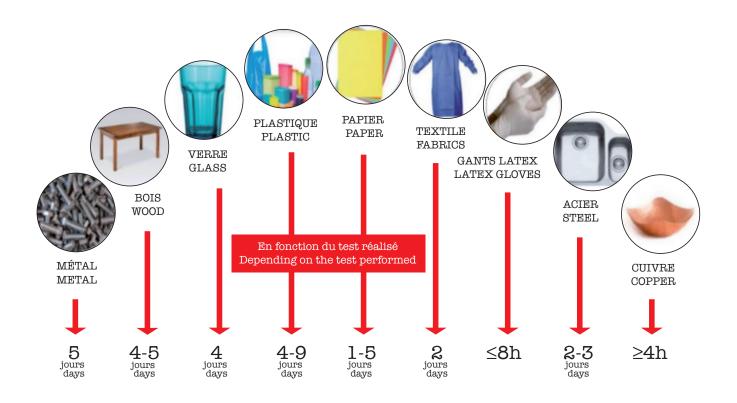
3/ WIPES AND CLOTHES

- Microfiber cloths that do not scratch varnishes, they can be reused after disinfection or washing (> 30 min, > 60°C, with a detergent).
- Non-impregnated polishing cloths or wipes, they can be reused after disinfection or washing (> 30 min, > 60°C, with a detergent).
- Pre-impregnated wipes, ensure that they comply with standard EN 144762, are not abrasive, and use them according to the protocol written on the label.
- Avoid paper towels for varnished parts.

(2) The EN 14476 standard means that the product deactivates 99.99% of copies of viruses (division by 10000) under the protocol specified by the provider.

4/ QUARANTINE

The concept of quarantine is not yet well defined because it depends on several factors (material of the surface to be decontaminated, room ventilation, humidity, temperatures etc.). It is for this reason that, for these recommendations, we prefer to look broadly and propose a quarantine of 6 to 9 days, which will be updated as scientific publications progress. A summary is shown in the figure below.

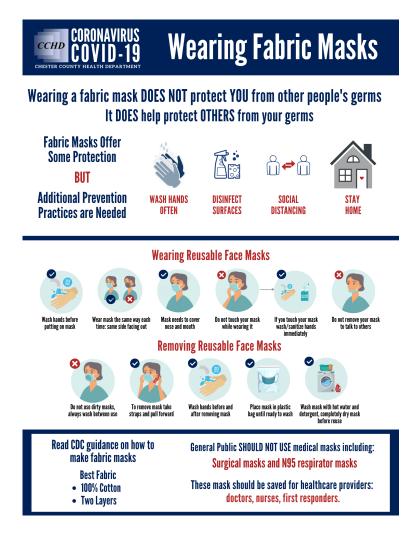




5/ WEARING THE MASK

- Wearing a mask is recommended, at least the surgical mask, when close with other people.
- Not all masks have the same effectiveness, but not all are available to the general public.





6/ SANITARY PRODUCTS SUPPLIERS

Click on the names (Non-exhaustive list)

- Hydroalcoholic solutions
- •EN 14476 products

Disinfectant 1

Disinfectant 2

Disinfectant 3

Disinfectant 4

PDI Sani-Cloth® 1 Sani-Cloth® 2 Cleanisept®



VIOLIN FAMILY INSTRUMENTS NOMENCLATURE



1/ BODY AND HEAD

What will define the right disinfectant to use is mainly the varnish that is applied on head and the body. For traditional instruments, these varnishes are based on alcohol (in which resins and gums are integrated, such as shellac, sandarac, elemi, benzoin etc.) or vegetable oil, (in which rosin or other products are integrated). These varnishes are more fragile than modern varnishes, and **alcohol is strictly prohibited**. For some modern composite or electric instruments, modern varnishes can be used, such as polyurethane and nitrocellulose ones..

Again and as a reminder, always test the selected and compatible product on a small part of the instrument in order to see the result, before applying it to the whole instrument.

Procedure

- 1. Wash / disinfect hands.
- 2. Perform a pre cleaning of the instrument with a dry, disinfected cloth.
- 3. For the liquid products to be applied: rub lightly with a disinfected cloth or wipe very slightly soaked in the product. Take care not to soak the product too much.
- 4. Do not reuse the cloth after disinfection (disinfect, wash or throw it away).

To remember (see table)

- For traditional alcohol-based varnishes (or non-traditional nitrocellulose varnishes), use a product according to standard EN 14476 without alcohol, after prior cleaning with a dry cloth or soap. But beware of the frailty of these finishes in the event of repeated use of such a treatment. Contact your manufacturer / luthier. Also, be careful with the amount of water on alcohol varnishes, which can blanch them.
- For oiled finishes, whatever the treatment inflicted, this will have the effect of creating a damaging abrasion in the long term. Prefer wiping with a dry and disinfected cloth and quarantine. Contact your manufacturer / luthier.
- For polyurethane, UV-based and polyester varnishes, biocidal or alcoholic surface cleaners> 70° seem to be the most suitable ones, even in the event of frequent use. These varnishes are very resistant and withstand repeated disinfection very well. These are not the finishes that can be found on traditional acoustic instruments.

Dinfectant product / process	Head / body						
	Polyurethane / polyester / UV based varnish	Nitrocellulose based varnish	Alcohol based varnish	Oil varnish			
Bleach > 0.5 %	yes	yes yes		yes, caution, may blanch			
Alcohol > 70°	yes	no	no	no			
Oxygenated water 3 % (10 vol.) maximum	yes	yes, without alcohol	yes, caution, may blanch	yes, caution, may blanch			
EN 14476 products (Sanytol [®] , Sani-Cloth [®] , etc.)	yes	yes, without alcohol	yes, without alcohol	yes, without alcohol			
UV-C	to be tested		n	.0			

2/ NECK

The neck is not varnished, it is oiled, with a primer and polished. For the neck, fprefer alcohol if it is not varnished. Beware of the varnish present on the heel and on the bottom of the head.

Procedure

- 1. Wash / disinfect hands.
- 2. Perform a pre cleaning of the instrument with a dry, disinfected cloth.
- 3. For the liquid products to be applied: rub lightly with a disinfected cloth or wipe very slightly soaked in the product. Take care not to soak the product too much.
- 4. Do not reuse the cloth after disinfection (disinfect, wash or throw it away).



3/ FINGERBOARD

For the fingerboard clean and disinfect after removing the strings.

Procedure

- 1. Wash / disinfect hands.
- 2. Perform a pre cleaning of the instrument with a dry, disinfected cloth.
- 3. For the liquid products to be applied: rub lightly with a disinfected cloth or wipe very slightly soaked in the product. Take care not to soak the product too much.
- 4. Do not reuse the cloth after disinfection (disinfect, wash or throw it away).

Dinfectant product / process	Oiled / polished fingerboard Alcohol based varnish		Nitrocellulose based varnished fingerboard	
Bleach > 0.5 %	yes	yes	no	
Alcohol > 70°	yes	yes	no	
Oxygenated water 3 % (10 vol.) maximum	to be tested	yes	yes, without alcohol	
EN 14476 products (Sanytol®, Sani-Cloth®, etc.)	yes	yes yes		
uv-c	no, except if removed from the instrument	to be tested		

4/ FITTINGS

- For all metal parts, use bleach> 0.5%, Alcohol> 70° or products according to standard EN 14476 (Sanytol®, Sani-Cloth®, Cleanisept®). Be careful not to spill it on the varnished wooden parts if they are incompatible.
- For varnished wooden parts, see previous paragraph.

Procedure

- 1. Wash / disinfect hands.
- 2. Perform a pre cleaning of the instrument with a dry, disinfected cloth.
- 3. For the liquid products to be applied: rub lightly with a disinfected cloth or wipe very slightly soaked in the product. Take care not to soak the product too much.
- 4. Do not reuse the cloth after disinfection (disinfect, wash or throw it away).

• Tailpiece / tailpiece attachment / button

The tailpieces can be made of different materials: wood, plastic, metal or composite, refer to the table below. For the violin and viola, the button is made of wood, that has to be cleaned with a cloth slightly moistened with alcohol. Be careful not to touch the sides. For the cello and double bass, the button is replaced by a sliding system with a spike. The spike can be cleaned with 70° alcohol. Again, be careful not to touch the sides.

The tailpiece attachments can be made of different materials: nylon, titanium or gut. Nylon or titanium can be cleaned with alcohol. Gut ropes are to be regarded as gut strings and cleaned with a 70° hydroalcoholic solution / gel.

Dinfectant product / process	Oiled / polished tailpiece	Polyurethane varnished tailpiece	Nitro- cellulose var- nish tailpiece	Plastic based tailpiece	Metal tailpiece		
Bleach > 0.5 %	yes	yes	no	yes	yes		
Alcohol > 70°	yes	yes	no	yes	yes		
Oxygenated water 3 % (10 vol.) maximum	to be tested	yes	yes, without alcohol	yes	yes		
EN 14476 products (Sanytol®, Sani-Cloth®, etc.)	yes	yes	yes	to be tested	yes		
UV-C	to be tested, only if separated from the instrument						

· Tuning pegs

The tuning pegs are mainly made of wood, ebony, rosewood or boxwood. Boxwood is colored and products that discolor it should be avoided. You have to be very careful that pegs are not too moistened so that they do not swell and damage the peg box by cracking it. Liquid solutions should be used sparingly.

For double basses it is metal mechanics. For all metal mechanics, use bleach> 0.5%, Alcohol> 70° or products standard EN 14476 (Sanytol®, Sani-Cloth®, Cleanisept®, etc.), be careful not to spill any on the varnished parts.

Dinfectant product / process	Ebony pegs	Rosewood pegs	Boxwood pegs	Metal tuning machines	
Bleach > 0.5 %	yes	yes	no	yes	
Alcohol > 70°	yes	yes	no	yes	
Oxygenated water 3 % (10 vol.) maximum	to be tested	yes	yes, without alcohol	yes	
EN 14476 products (Sanytol [®] , Sani-Gloth [®] , etc.)	yes	yes	yes	yes	
UV-C	to be tested, only if separated from the instrument				



• Chinrest

The chinrests can be made from different materials: wood, plastic, metal or composite, refer to the table below.

Dinfectant product / process	Polished ebony chinrest	Colored wood chinrest	Stained wood chinrest	Plastic based chinrest		
Bleach > 0.5 %	yes	no	no	to be tested		
Alcohol > 70°	yes	yes	no	yes		
Oxygenated water 3 % (10 vol.) maximum	to be tested	yes	yes, without alcohol	yes		
EN 14476 products (Sanytol [®] , Sani-Cloth [®] , etc.)	yes	yes	yes	yes		
UV-C	to be tested, only if separated from the instrument					

• Shoulder rests / pads

The shoulder rests / pads can be made from different materials: wood, plastic, and foams with metal feet and a rubber part. Refer to the table below.

Dinfectant product / process	Varnished wood shoulder rest	Plastic based shoulder rest	Foams	Metal feet		
Bleach > 0.5 %	to be tested	yes	no	to be tested		
Alcohol > 70°	to be tested	yes	yes	yes		
Oxygenated water 3 % (10 vol.) maximum	yes	yes	yes	yes		
EN 14476 products (Sanytol®, Sani-Cloth®, etc.)	yes	yes	yes	yes		
UV-C	to be tested, only if separated from the instrument					

• Bridge

The bridge is a piece of wood treated by the manufacturer, in raw solid wood, sometimes lightly rubbed with soap. It can be cleaned with a cloth lightly moistened with 70° alcohol without residue. Beware of the varnished soundboard which could be damaged by contact.

Mutes

Mutes can be made of wood, plastic, metal or rubber, they can be cleaned with alcohol > 70°. Beware of the varnished soundboard which could be damaged by contact.

• Fine tuners

The fine tuners are made of metal, they can be cleaned with a cloth soaked in alcohol. Beware of the soundboard.



5/ STRINGS WHATEVER ALLOYS AND MATERIALS

Important note: To date, for stringed instruments, no unanimous disinfectant product or process has been identified. However, it is recommended to follow "exceptionally", in the cases mentioned on the first page of this guide, the following procedures which will greatly reduce the concentration of copies of virus on the strings.

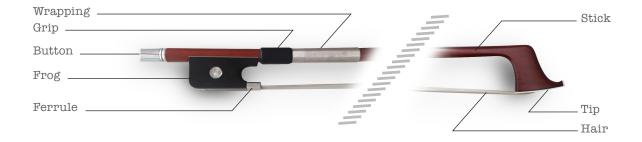
1st recommendation

The strings are a quartet consumable, but are changed much less frequently than on instruments like the guitar. It's more prudent to either quarantine, or change the strings after disinfecting the instrument. If changing strings is not desired, follow the recommendations below.

Procedure

- 1. Wash / disinfect hands.
- 2. Perform a pre cleaning of the instrument with a dry, disinfected cloth.
- 3. For the liquid products to be applied: rub lightly with a disinfected cloth or wipe very slightly soaked in the product. Take care not to soak the product too much.
- 4. Do not reuse the cloth after disinfection (disinfect, wash or throw it away).
- For unvarnished synthetic strings (nylon or fluorocarbon), use 70° alcohol or EN 14476 standard products (Sanytol®, Sani-Cloth®, Cleanisept®, etc.) with a cloth or wipe slightly soaked.
- For wrapped strings, avoid any product which will leave lint between the wraps, favor an alcohol product (more than 70°) with a slightly moistened cloth and rapid rubbing with long gestures.
- For metal alloy strings, use a 70° alcohol product with a slightly soaked very soft cloth.
- For oiled tubular ropes, it is preferable to use a gel or a hydroalcoholic solution with 70° alcohol.

BOW NOMENCLATURE





1/ THE STICK

The stick is generally made of wood, tropical for classic or modern type bows or temperate for older bows. Part of modern sticks are made of carbon fibers in an epoxy matrix. The sticks can be covered with a thin layer of alcohol or oil varnish and polished.

Procedure

- 1. Wash / disinfect hands.
- 2. Perform a pre cleaning of the instrument with a dry, disinfected cloth.
- 3. For the liquid products to be applied: rub lightly with a disinfected cloth or wipe very slightly soaked in the product. Take care not to soak the product too much.
- 4. Do not reuse the cloth after disinfection (disinfect, wash or throw it away).

Dinfectant product / process	Tropical wood, alcohol-based varnish	Tempered wood, oiled	Carbon fiber reinforced polymer stick		
Bleach > 0.5 %	-	yes	yes		
Alcohol > 70°	o° yes, might require a yes French polishing		yes		
Oxygenated water 3 % (10 vol.) maximum	no	no	yes (mais sans eau oxygénée)		
EN 14476 products (Sanytol®, Sani-Cloth®, etc.)	yes	yes	yes (mais without alcohol)		
UV-C	to be tested on stick without hair				

2/HAIR

The hair is made of horsehair covered with rosin to ensure friction on the strings. Some modern hair is made of synthetic fibers. Rosin will dissolve quickly in alcohol if applied. For cleaning with alcohol or oxygenated water it must be done completely to prevent the horsehairs from sticking together.

Dinfectant product / process	Horsehair	Synthetic hair		
Bleach > 0.5 %	yes	yes		
Alcohol > 70°	yes, but removes rosin			
Oxygenated water 3 % (10 vol.) maximum	no	no		
EN 14476 products (Sanytol [®] , Sani-Cloth [®] , etc.)	no	yes		
UV-C	to be tested			



3/ WRAPPING

The wrapping is made up of leather for thumb and silver or gold thread. Leather and metal can be cleaned with alcohol.

Dinfectant product / process	Silver or gold thread	Silver on silk Colored silk thread thread		Plastic based thread	Thumb leather		
Bleach > 0.5 %	to be tested	yes	no	no	no		
Alcohol > 70°	yes	yes	yes	yes	yes		
Oxygenated water 3 % (10 vol.) maximum	yes	yes	yes	yes	yes		
EN 14476 products (Sanytol®, Sani-Cloth®, etc.)	yes	yes	yes	yes	no		
UV-C	to be tested						

4/FROG

The frog is made either of wood, ivory, horn, tortoiseshell, inlaid with mother-of-pearl, or pearloid, comprising silver, gold or nickel silver coins. It is fixed by a screw and a button, potentially decorated with mother-of-pearl, wood, metal or pearloid.

Dinfectant product / process	Metal ferrule	Ivory frog	Wooden frog	Tortoise shell frog	Mother of pearl frog	Pearloid	Button
Bleach > 0.5 %	yes	yes	yes	to be tested	yes	no	yes
Alcohol > 70°	yes	yes	yes	to be tested	yes	yes	yes
Oxygenated water 3 % (10 vol.) maximum	yes	to be tested	yes	to be tested	yes	yes	yes
EN 14476 products (Sanytol®, Sani-Cloth®, etc.)	yes	yes	yes	to be tested	yes	yes	yes
UV-C	to be tested						

5/ TIP

The tip, made of ivory, bone, metal, or plastic can be cleaned with 70° alcohol or 3% (10 vol.) oxygenated water.



AMPLIFIERS

There are generally two types of materials on the amplifier's surface (except handle and front and rear control panels):

- Tolex (PVC): favor bleach > 0.5% or Products standard EN 14476 (Sanytol®, Sani-Cloth®, Cleanisept®, etc.) without alcohol.
- Unvarnished tweed (bare fabric): favor EN 14476 standard products (Sanytol®, Sani-Cloth®, Cleanisept®, etc.) (to be tested, and avoid fluffy clothes).
- Varnished tweed: there are different types of varnish and it is advisable to proceed as for guitars guide. Test on a small surface under the amplifier. For all other amp parts and for the pedals: handles, potentiometers, metal parts: use bleach > 0.5%, or 70° alcohol or EN 14476 standard products (Sanytol®, Sani-Cloth®, Cleanisept®, etc.).

Warning

On front pannels, printing can be deleted depending on the products used.

Procedure

- 1. Wash / disinfect hands.
- 2. Perform a pre cleaning of the instrument with a dry, disinfected cloth.
- 3. For the liquid products to be applied: rub lightly with a disinfected cloth or wipe very slightly soaked in the product. Take care not to soak the product too much.
- 4. Do not reuse the cloth after disinfection (disinfect, wash or throw it away).

CASES

Ask customers / students to take back their cases to avoid storage and piling up them. Otherwise remove the instrument from the case to reduce the residual humidity, and ventilate it to allow it to dry out. Remember to thoroughly clean / disinfect locks, latches, handles and straps after each use.

SCORES

For the moment there are no solutions to disinfect partitions, apart from quarantine between 6 and 9 days. We suggest covering them with plastic sheets which can be cleaned with alcohol.

MUSIC STANDS

The music stands, mostly made of metal, can be cleaned with 70° alcohol.

ROSIN

It must be used personally, if possible with a glove or washed, disinfected hands.

TUNERS

Plastic electronic tuners can be cleaned with 70° alcohol. The metal tuning forks can be cleaned with alcohol at 70°.



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