GOOD PRACTICE GUIDE

for music stores / instrument workshops / manufacturers / musicians



GUITARS

AMPLIFIERS - ACCESSORIES









Issue 21 December 2020 - Sources: CSFI - ITEMM - Manufacturers - Ministry of Labour

These recommendations are based on the current knowledge and are provided for the time needed to manage the COVID-19 pandemic.

Always maintain a minimum distance of 1.50m from any other person. Wearing a mask is mandatory in public transportation and recommended when moving inside the shop or the workshop when several persons are present.



ANY TYPE OF GUITAR, BODY-NECK, ACOUSTIC OR ELECTRIC, HOLLOW OR SOLID-BODY. ANY TYPE OF AMPLIFIER AND GUITAR ACCESSORY.

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IMPORTANT REMINDER: This disinfection recommendation guidance must only be followed if you believe you have been in contact with the virus. We recommend, however, that you pay special attention to the different lacquers and parts of the instrument, and ideally contact your manufacturer.

When trying an instrument in a store or workshop, should the musician washes / disinfects their hands correctly, wears a face mask and washes / disinfects their hands once again after trying the instrument, the risks of virus transmission between the musician and the instrument will significantly be reduced.

These recommendations are based on the current knowledge and are provided for the time needed to manage the COVID-19 pandemic.

1/PREAMBLE

Following are the situations when the instrument / accessory could be contaminated (these cases depend on whether you are a musician or work in a workshop or a music store):

- Purchase, rental
- Repair or maintenance
- Exhibition / trade show
- Bench trial in a workshop or a shop
- Loan, class, rehearsal or live performance
- Transportation
- Using / playing the instrument without prior hand washing / disinfecting
- If someone touches it or gets close to it (<2m and coughs or talks)

In any other case, disinfection is not necessary. Regular cleaning and maintenance of the instrument and its accessories remain the good practice, whether the virus is present or not.

Good practice is common sense

- Prior to any disinfection, wash / disinfect your hands and clean every part of the instrument and accessories with a disinfected dry clothl;
- Do not use any paper-based material such as paper towels which may scratch the lacquers and leave bits of lint on the surfaces
- If possible, quarantine the instrument and its accessories, for it will significantly help reduce the virus levels. The virus survival on the different surfaces depends on multiple parameters such as material, texture, humidity, presence of proteins and bio film. Preliminary data give a more accurate evaluation of the necessary quarantine duration according to the material. Please read Section 4 for further information about the quarantine.
- Before applying any of the products listed below on the entire instrument and its accessories, please try on a small part of it
- When multiple persons are playing or using an instrument and its accessories, encourage them to use at least a surgical face mask and wash / disinfect their hands.

(1): Do not use the cloth multiple times without either disinfecting it with an effective product, or washing it at 60°C or higher for over 30 minutes. Otherwise, throw it away in an airtight container.



2/ DISINFECTANT PRODUCTS AND PROCESSES

The following products allow for disinfection which will significantly reduce the virus levels.

You will find in the second part of this document a list of products suited for the different parts of your instrument:

- Chlorate derivatives: bleach > 0.5%. The value represents the sodium hypochlorite concentration. It's usually available with a 2.6% concentration or a 5 times maximum dilution which means one dose of the 2.6% product for 4 doses of cold water.
- 70% Alcohol. Alcohol is a well-known virucidal agent. Here's a list of recommended alcohols:
- Ethanol (the most common)
- Isopropyl alcohol
- Their concentration must be at least 70% (drugstores).
- NF EN 14476 standard compliant products (Sanytol®, Sani-Cloth®), in which hydrogen peroxide or quaternary ammoniums (didecyldimethylammonium chloride) are the most common active agents; please strictly follow the instructions of use (e.g. contact time). These are often alcohol-free solutions.
- Soap. Certain soaps have proven effectiveness in deactivating the virus but only after 3 minutes of use. These are:
- KLINTE DE® soap, diluted 10 times
- Little Marcel Green Soap®, effective when diluted up to 10 times.

However, this effectiveness is not guaranteed for all soaps and application modes. Other products should therefore be preferred whenever possible. Most notably, soap cannot be applied on an instrument with a friction that is equivalent to that of the hands, nor with the same amount of water. It's probably not as efficient when only "applied" and wiped up.

△ Non-Validated Products

The following products have been tested against active SARS-CoV-2 but have not demonstrated sufficient efficiency as a disinfectant.

• 3% hydrogen peroxide (or 10 volumes).

Disinfection Processes

We can see, especially on the Internet, that UV- or ozone-based processes are used for disinfecting music instruments and other products. Extreme caution is required when using these methods to potential health risks, if they have not been certified by independent, scientific and professional organizations.

• Ultraviolets treatments can be efficient in certain contexts but they must be handled with extreme caution because they may be harmful to the skin and eyes and may form ozone, which is toxic. Moreover, these processes do not guarantee full efficiency, in particular when specific parts cannot be lit. It is important to take into account the UV-C light wave length (220 to 280nm), its power, distance and exposure duration. These treatments may also damage the lacquers, especially on string quartet instruments. In any case, the provider must present evidence of the effectiveness of such approach (in particular the time required to deactivate SARS-CoV-2).

• Ozone in gas phase may deactivate viruses, but at high concentrations only, which will be harmful to human beings. Its use requires very specific knowledge and skills. It is not particularly recommended to this day.

3/ CLOTHS AND CLEANSING WIPES

- Microfiber cloths that won't scratch the lacquers can be reused after being disinfected or washed (> 30 minutes, > 60°C, with a detergent product).
- Non-impregnated polishing cloths or wipes can be reused after disinfection or wash (> 30 minutes, > 60°C, with a detergent product).
- Pre-impregnated wipes, please ensure that these are NF EN 14476 standard compliant2, that they are not abrasive and follow their instructions of use. Please pay attention to the string quartet instrument lacquers and check compatibility, in particular when using alcohol products.
- Avoid any paper towels on the lacquers, but preferably use cotton cloths instead.

(2) NF EN 14476 standard means that the product inactivates 99.99% viruses (per 10,000 division) in the protocol provided by the manufacturer.

4/ QUARANTINE

Quarantine duration has not been clearly defined yet, because it depends on multiple factors (material of the surface to be decontaminated, room ventilation, humidity, temperature, and more).

Several results have emerged. Most notably, the common 3-day duration is in no way the generic rule. The instrument or accessory material must be taken into account. The list below describes the materials for which the viral load is sufficiently reduced. These results follow from trials carried out by a French Institute using SARS-CoV-2, for the purposes of the PIC Project (Protocoles pour les Instruments face au Coronavirus / Procedures against Coronavirus for Music Instruments). This is the second part of the PIC Project, the first one being the writing of these guidebooks.



GENERAL PRINCIPLES

Materials on which the virus has been sufficiently deactivated (disinfection) after 3 days

Silver
Nickel
Nickel Silver
Gold Plating
ABS Plastic
Polyurethane Varnish
Nitrocellulose Varnish

Materials on which the virus is still active in significant amounts after 3 days,

(quarantine during at least 6 days as a precaution)

Ebonite Brass Oil-Based Varnish Alcohol-Based Varnish Epoxy Resin-Based Varnish

5/ FACE MASK USE

- \bullet Wearing a face mask is mandatory when being near other persons.
- Strictly follow the protocol to wear your mask:

How do I put my surgical face mask on? Wash your Flip your mask to the Tie the top Pinch the stiff edge Tie the bottom To remove it, Throw the face ${\tt right\ side\ (stiff\ edge}$ hands ties of your to adjust it to the ties of your only touch the ties mask away and face mask is the top, white side shape of your nose face mask wash your hands towards your face) - © French Ministry of Health -



1/ LACQUERED WOODEN PARTS BODY AND NECK

For wooden guitars, the material represents 63% to 82% of the instrument total weight (electric, classical, folk). The lacquer applied on all the parts, such as the neck and body, will mainly determine the appropriate disinfectant product to be used. The most common lacquer is polyurethane (P.U.), which is applied on most of the guitars and is the most resistant to the suggested products. Then come the strings and hardware. Below is a table itemizing the most common finish types. Once again, always test the selected product on a small part of the guitar in order to check the result before applying it to the whole instrument.

Process

- 1. Wash / disinfect your hands.
- 2. Clean the instrument with a disinfected dry cloth.
- 3. For liquid products to be applied: gently wipe with a disinfected cloth or a cleansing cloth which was slightly moistened with the product. Do not soak the cleansing cloth with the product.
- 4. Do not reuse the cloth after disinfecting the equipment (sanitize, wash or throw it away).

Reminder (see the table)

- For modern lacquers (polyurethane / polyester / UV lacquers), biocide surface cleaners or 70% or higher alcohol seem to be the most appropriate products, even when used frequently. These lacquers are very resistant and can handle repeated disinfections. These finish lacquers are used on most of the "industrial" instruments today, including high price range models.
- For cellulose finish and French polishing, a less "aggressive" solution is to be preferred, such as Marseille soap + damp cloth (which then must be disinfected, washed or thrown away) to the least, or alcohol- free NF EN 14476 standard products. Caution: these finishes are fragile, these treatments must be applied with care when used repeatedly. These lacquers require more work when applied, therefore they are reserved to high-end instruments built by industrial manufacturers and luthiers. Please contact your manufacturer / luthier.
- For oiled or waxed finishes, whatever the treatment applied, a damaging abrasion will occur in the long run. Wiping with a dry and disinfected cloth, followed by a quarantine, should be the preferred solution. Please contact your manufacturer / luthier.

Products / Disinfection Processes	Wooden Neck/Body						
	Polyurethane Lacquer, polyester, UV	Cellulose Lacquer French polishing	Wood Tainted	Wood Oiled	Wood Waxed	Wood Unprocessed	
Chlorate derivatives coming from bleach > 0.5%	Yes	DNK	To be tested	To be tested	To be tested	To be tested	
70% or higher Alcohol	Yes	No	To be tested	To be tested	To be tested	To be tested	
14476 standard products (Sanytol®, Sani-Cloth®, etc.)	Yes	Yes, if alcohol-free	To be tested	To be tested	To be tested	To be tested	
UV-C	Yes, to be tested	Yes, to be tested	To be tested	To be tested	To be tested	To be tested	



2/ FRETBOARD AND FRETS

Fretboard and frets must be cleaned and disinfected after removing the strings.

Process

- 1. Wash / disinfect your hands.
- 2. Clean the instrument with a disinfected dry cloth.
- 3. For liquid products to be applied: gently wipe with a disinfected cloth or a cleansing cloth which was previously slightly moistened with the product. Do not soak the cleansing cloth with the product.
- 4. Do not reuse the cloth after disinfecting the equipment (sanitize, wash or throw it away)..

Products / Disinfection Processes	Frets	Oiled / waxed fretboard	PU lacquered fretboard	Lacquered fretboard Nitrocellulose
Chlorate derivatives coming from bleach > 0.5%	Yes	DNK	Yes	No
70% or higher Alcohol	Yes	DNK	Yes	No
14476 standard products (Sanytol®, Sani-Cloth®, etc.)	Yes	DNK	Yes	Yes if with alcohol
UV-C	To be tested	To be tested	To be tested	To be tested

3/ TUNING MACHINES AND HARDWARE

• For all metal parts, use chlorate derivatives coming from bleach > 0.5%, 70% or higher alcohol or NF EN 14476 standard compliant products (Sanytol®, Sani-Cloth®, and more).

Caution: do not spill on the wooden parts if these are not compatible.

• For any wooden part, please read section A.

Process

- 1. Wash / disinfect your hands.
- 2. Clean the instrument with a dry and disinfected cloth.
- 3. For liquid products to be applied: gently wipe with a disinfected cloth or a cleansing cloth which was previously slightly moistened with the product. Do not soak the cleansing cloth with the product.
- 4. Do not reuse the cloth after disinfecting the equipment (sanitize, wash or throw it away).

For non-wooden guitars

- Resonator metal guitars: nickel- / chrome-plated -> any compatible product.
- Lacquered: read instructions about lacquers.
- Metal guitar without resonator: varies according to the finish, please contact the manufacturer / luthier.
- Any other material: please contact the manufacturer / luthier.



4/ STRINGS

Any alloy and material

Important

At this time, for stringed instruments, no product or disinfection process that would not alter the material and acoustic performances of the strings have been identified. However, in the cases listed on the first page of this guide, it is recommended you "exceptionally" follow the following methods, which will significantly lower the virus levels on the strings.

1st recommendation

Being the most replaced items on the guitar, it's wise to either quarantine or replace the strings after having disinfected the guitar. If you do not wish to replace the strings, please follow the recommendations below.

PLEASE NOTE

Copper, which is part of the alloys used on many acoustic guitar strings (steel, wound strings), is a metal on which the virus can be inactivated

faster than on any other metals (4 hours estimated). For high rate copper alloys, wiping with a dry and disinfected cloth followed by a short quarantine (e.g 24 hours) should be the preferred process.

Process

- 1. Wash / disinfect your hands.
- 2. Clean the instrument with a disinfected dry cloth.
- 3. For liquid products to be applied: gently wipe with a disinfected cloth or a cleansing cloth which was previously slightly moistened with the product. Do not soak the cleansing cloth with the product.
- 4. Do not reuse the cloth after disinfecting the equipment (sanitize, wash or throw it away).
- For coated synthetic strings (nylon or fluorocarbon), use 70% alcohol or any NF EN 14476 standard compliant product (Sanytol®, Sani-Cloth®, and others) with a slightly moistened cleansing cloth.
- For wound strings, please avoid any product that might leave residues between the wrap wire. A 70% alcohol product used with a slightly moistened cloth should be preferred.
- For metal strings such as those used on folk and electric guitars, a 70% alcohol product used with a slightly moistened cloth should be preferred.
- For coated gut strings, alcohol-free NF EN 14476 standard compliant products (Sanytol®, Sani-Cloth®, and more) should be preferred in order to avoid any damage to the coating.
- For polyurethane coated gut strings, a 70% alcohol products used with a slightly moistened cloth should be preferred.
- For oiled gut strings, a 70% alcohol aqueous-alcoholic solution should be preferably used. (To be tested).



There usually are two types of materials on the surface of an amplifier (except on the handle and front/rear control panels):

- Tolex vinyl (PVC): any chlorate derivative coming from bleach > 0.5% or alcohol-free NF EN 14476 standard compliant product (Sanytol®, Sani-Cloth® and more) should be preferably used.
- Non lacquered tweed (unprotected fabric): any NF EN 14476 standard compliant product (Sanytol®, Sani-Cloth®, and more) should be preferred (to be tested, and avoid fuzzy cleansing cloth).
- Lacquered tweed: there are different types of lacquers, please follow the same process used with guitars (please see the table in the Guitars section). Don't hesitate to try on a small surface on the bottom of the amplifier.

For any small parts of the amps and for stompboxes/footswitches: handles, knobs, metal parts: use chlorate derivatives coming from bleach > 0.5% or 70% alcohol or NF EN 14476 standard compliant products (Sanytol®, Sani-Cloth®).

Warning

For front panels, some of the products used might erase the inscription.

Process

- 1. Wash / disinfect your hands.
- 2. Clean the instrument with a disinfected dry cloth.
- 3. For liquid products to be applied: gently wipe with a disinfected cloth or a cleansing cloth which was previously slightly moistened with the product. Do not soak the cleansing cloth with the product.
- 4. Do not reuse the cloth after disinfecting the equipment (sanitize, wash or throw it away).



Even more than the instrument itself, accessories are more likely to be passed around, whether in the store, during rehearsals or on stage. For greater caution, it is recommended not to lend accessories during the pandemic or disinfect them before re-use.

For the accessories below, choose between the following solutions:

- Chlorate derivatives coming from bleach > 0.5% or
- 70% or higher alcohol or
- NF EN 14476 standard compliant products (Sanytol[®], Sani-Cloth[®], etc.)

Guitar Picks: Plastic, galalith, celluloid, bakelite, metal, wood, carbon and more -> 70% alcohol, NF EN 14476 standard compliant product.

Cables: metal alloy, polyethylene -> alcohol, NF EN 14476 standard compliant products.

Hard / Soft Cases (outer surfaces): fabric, plastic (ABS, polyethylene), tolex vinyl -> any of the aforementioned products. Leather -> 70% alcohol, test on a sample that it doesn't fade.

Tuner: plastic (ABS, polyethylene) -> alcohol, NF EN 14476 standard compliant products.

Capo: metal and plastic alloys (ABS, polyethylene) -> alcohol, NF EN 14476 standard compliant product.

Music scores and paper books: quarantine, UV-C.

Strap: fabric (cotton), plastic -> any of the aforementioned products. Leather -> 70% alcohol, test on a sample that it doesn't fade.

Guitar stands / music stands / footstools: metal and surface material, plastic, foams: alcohol, NF EN 14476 standard compliant products.

Computer Music Products: metal, plastic (ABS, polyethylene) -> alcohol, NF EN 14476 standard compliant product.

Effects Pedals: metal, plastic (ABS, polyethylene) -> alcohol, NF EN 14476 standard compliant product.

Specific case: inner surfaces of guitar hard / soft cases.

Don't overlook the inner surfaces of hard / soft cases which are often made of some kind of plush fabric, velvet, foam lining... Store open in a ventilated room and quarantine.

Don't forget to thoroughly clean / disinfect handles and straps after each use.



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