



## **Sound Synergies talks about What You Can Do to disinfect and treat your music instruments and other things at home.**

There are many so-called music instrument disinfectants on the market, but they may be partially or totally ineffective without proper application and minimum concentrations of effective ingredients. We wanted to focus on the basics and inform you about what to look for and simple inexpensive procedures to disinfect instruments.

Corona type viruses persist longer on smooth surfaces like glass, smartphones, booth telephones, doorknobs, etc. Bare metal surfaces that are ionically charged like copper and silver tend to decrease viral persistence but most wind and other musical instruments that have smoother outer lacquer coatings are ideal "viral parking lots". Viral persistence will also be high for smooth surfaces on other musical instruments including acrylic and plastic components.

*“Human coronaviruses can remain infectious on inanimate surfaces at room temperature for up to 9 days. At a temperature of 30°C [86°F] or more, the duration of persistence is shorter. Veterinary coronaviruses (ones that can only infect animals) have been shown to persist even longer for 28 days.”*

Although authorities state that corona type viruses generally do not persist on inanimate surfaces longer than 9 days, microbes such as bacteria, mold and fungus will grow and persist much longer in moist environments.



*Note: Natural disinfectants for brass and woodwind mouthpieces like vinegar (acetic acid) and lemon juice (citric acid) are commonly used but they are not effective against the coronavirus that causes COVID-19.*

Isopropyl alcohol (2-propanol) solutions with at least 70% concentration should be effective for disinfecting metallic and certain plastics. Apple also recommends 70% for cleaning and sterilizing their smartphones as well. Do not use electronic grade alcohol, usually 91-99% concentration, because many microbiologists agree that it “burns and then seals” the outer membrane. Dilute solutions of 70% alcohol are more effective as water facilitates the penetration of alcohol through the virus membrane into the nucleus.



You can purchase 70% isopropyl alcohol online, at your local supermarket, corner drug store or pharmacy. Fortunately, it's inexpensive and one of the most effective disinfectants. Make sure that hand sanitizers and wipes are 70% concentration as they are more effective than the lower

60%+ concentrations of ethyl alcohol. We also recommend wearing inexpensive disposable rubber gloves while disinfecting your instrument or gear surfaces, also available at drug stores and supermarkets. If you don't have access to rubber gloves wash your hands thoroughly before and after the procedure.

We do not recommend using bleach solutions to disinfect or clean your instrument. Bleach solutions may discolor plastics and they are very caustic to your skin, delicate finishes, and will promote metal corrosion and oxidation. Bleach solutions should also be applied using rubber gloves when disinfecting household and industrial surfaces, etc.

*“Perhaps one of the few encouraging aspects of the COVID-19 outbreak is that the virus is enveloped. Enveloped viruses are the least resistant to inactivation by disinfection. The structure of these viruses includes a lipid envelope, which is easily compromised by most disinfectants. Once the lipid envelope is damaged, the integrity of the virus is compromised, thereby neutralizing its capacity to infect.”*



When we started to develop our Sound Synergies line in 2014 our musicians and technicians were well aware of the pervasiveness of viruses, bacteria, molds, and fungus on internal surfaces of wind instruments. We wanted to address these microbial factors in developing our formulas for other musical instruments as well, but creating formulas that were not harmful to sensitive wood finishes. All of our Sound Synergies compounded formulas contain a major component that both dissolves lipids and aids in the de-activation of viruses through the breakdown of their envelope.[1]

What is the proper procedure for disinfecting my instrument and gear surfaces? Well, there are many different methods, but this is how we ensure that our instruments are completely sterile.



1. In the case of **metallic wind instruments** first flush all internal surfaces with alcohol onto thick or multi-layered paper towels which are inexpensive and can be discarded safely. Sometimes we perform a second cleaning using a soaked disposable swab on internal surfaces and piping if the instrument is particularly dirty. Complete with a final rinse off of all surfaces with alcohol. Shake excess liquids out and do not use compressed air to blow out pipes or blow off surfaces. You don't want all that nasty stuff going airborne in your environment!
2. Wipe down external surfaces with paper towels soaked with alcohol solution or you can use an empty spray bottle for convenient application. Don't wipe off excess liquids...let the alcohol do its work. Set instrument aside and let any excess liquid evaporate and dry thoroughly for about 15-20 minutes, especially internal surfaces.
3. You can soak detachable mouth pieces for 15 minutes in an alcohol bath. Remove from bath place on clean paper towel allow to air dry. For reed instruments discard old reed and replace with a new reed soaked in 3% Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) solution for about 5 minutes or until bubbles stop. Remove from bath, rinse off with water and place on clean paper towel allow to air dry.
4. After drying, apply Sound Synergies BRITETone® into internal piping, external surfaces, and all pads using our attached spray applicator. Use a clean dry microfiber cloth for treating larger surfaces. BRITETone® will also flush out any remaining pockets of moisture from hard to reach areas.
5. Alcohol is often used to clean **woodwind bores**, but it can dry out woods and potentially harm certain finishes. Follow instrument manufacture's cleaning recommendations. After cleaning and sterilization we recommend applying BRITETone® to the bore to condition and protect wood surfaces from moisture.
6. We know that alcohol can dry out pads, especially leather ones, that is why we recommend applying BRITETone® liberally to all pads after sterilization to condition and rejuvenate.
7. Now your instrument surfaces are protected against oxidation and corrosion as well as the build up of microbes.



1. In the case of **non-metallic** and **stringed instruments** like guitars and other stringed instruments with fine wood finishes, etc., do not use rubbing alcohol, hand sanitizers or wipes, vinegar, citric acid, generic polishes or silicone substances to clean your instrument. These substances can damage or create permanent hazing of the finish especially nitrocellulose lacquer. Most manufactures like Gibson recommend using a soft dry cloth to wipe down your strings and instrument. While this method is the safest way to clean your instrument it will not destroy viruses and other microbes.
2. We are aware that some dealers have used alcohol to clean their guitars, but you do so at you own risk especially on satin finishes! Alcohol can also dry out open grain woods by leaching out natural oils. Besides this method doesn't afford any long term protection for fingerboards, nuts, bridges and other surfaces.
3. That is why we recommend applying STRINGTone® after any sterilization procedure. Apply on large surfaces using a lightly saturated soft cloth. Use attached spray applicator straw for hard to reach areas. We always recommend first testing a small non-visible area or "test patch" before applying any substance to your instrument or gear finish.

Once you instrument is cleaned and sterilized Sound Synergies products will protect your instrument against build-up and contamination of various microbes. And as a bonus, exposed metallic surfaces will be conditioned against pitting, oxidation and corrosion. Use of alcohols will dry out exposed woods but our products formulated to rejuvenate, condition and protect all exposed wood surfaces. Not to worry, all our products are self-leveling and will not build up after repeated application.

**[For further information here is the CDC link to recommended preparation of various disinfectants.](#)**

[1] *Use of Lipid Solvents for Viral Inactivation in Factor VIII Concentrates*, G. Mitra and M. Wong Biological Research and Development, Cutter Laboratories, Fourth and Parker Streets, Berkeley, California 94710, May 10, 1985