

Non-Toxic Disinfectants approved by EPA:

Force of Nature: <https://www.forceofnatureclean.com/b2-lab-test-results-epa-registration/> Force of Nature miniaturizes the electrolyzed water technology from the industrial space. Salt, water and vinegar are converted to electrolyzed water when an electrical current changes the chemical composition of the solution into two new ingredients: Hypochlorous Acid And Sodium Hydroxide COST: \$2.40 per 12 oz bottle (if purchasing starter kit w/ enough packets to make up 50 bottles. After you own the kit, additional capsules to create each 12 oz. bottle is \$.97 cents (w/ shipping/tax) **\$.08 - .20/oz**



PROS: *Little to no scent at all. Relatively inexpensive. Non-toxic.*

CONS: *It takes six minutes to charge up each bottle. So if you are making up 20 bottles per week (like I would be for 19 cabins and a lodge), plan on 2 hours of prep time (also need to unplug charger for 10 seconds between running it, according to instructions – no biggie, just be aware. Or buy more than one charger.) You need to use up the charged liquid within two weeks. They suggest writing the dates on bottles in wipe-off marker.*

Hydrogen Peroxide: <https://www.consumerreports.org/cleaning/common-household-products-that-can-destroy-novel-coronavirus/> According to the CDC, household (3 percent) hydrogen peroxide is effective in deactivating rhinovirus, the virus that causes the common cold, within 6 to 8 minutes of exposure. Rhinovirus is more difficult to destroy than coronaviruses, so hydrogen peroxide should be able to break down the coronavirus in less time. Pour it undiluted into a spray bottle and spray it on the surface to be cleaned, but let it sit on the surface for at least 1 minute.



Hydrogen peroxide is not corrosive, so it's okay to use it on metal surfaces. But similar to bleach, it can discolor fabrics if you accidentally get it on your clothes. "It's great for getting into hard-to-reach crevices," says Richard Sachleben, an organic chemist and a member of the American Chemical Society. "You can pour it on the area, and you don't have to wipe it off because it essentially decomposes into oxygen and water." (Source: Consumer Reports)

PROS: *Readily available. Can be stored for long periods of time (shelf life of two years.) Lots of approved research on CDC, WHO, Medical facility scientific forums. It is cheapest by higher percentage bulk buys, then diluting it to the 3% solution. I.e. one gallon of 35% would make 13 gallons diluted with tap water. **\$.14 - .39/oz***

CONS: *It is a natural bleaching agent, avoid using repeatedly on upholstery, carpeting, etc.*

Isopropyl Alcohol [NOT VODKA]

Alcohol solutions with at least 70 percent alcohol are effective against the coronavirus on hard surfaces. First, clean the surface with water and detergent. Apply the alcohol solution (do not dilute it) and let it sit on the surface for at least 30 seconds to disinfect. Alcohol is generally safe for all surfaces but can discolor some plastics, Sachleben says. [Good Housekeeping quote: "70% is best — pure (100%) alcohol evaporates too quickly to be effective.]"



[**Vodka:** There are widely circulated recipes on the internet using vodka to combat the coronavirus. A couple of vodka makers, including Tito's, have already come out with statements telling their customers that their 80-proof product does not contain enough ethyl alcohol (40 percent compared with the 70 percent required) to kill the coronavirus.] (Source: Consumer Reports)

PROS: *Cheap at **\$.08/oz** at any drug or box chain store (Walmart, Target, drugstore.)*

CONS: *May have trouble getting rubbing alcohol right now as it is in high demand*

7th Generation: (You can navigate the EPA's list by searching for: Thymol, and the first part of the EPA Registration Number(s) listed above. Seventh Generation disinfecting products with CleanWell® INSIDE received confirmation from EPA on March 26, 2020 that they meet EPA's criteria for use against SARS-CoV-2. [See the EPA list here.](#)) Approved disinfection products:



- Professional Disinfecting Bathroom Cleaner Lemongrass Citrus Scent (26 oz \$3.99 Target **\$.15/oz**)
- Professional Disinfecting Kitchen Cleaner Lemongrass Citrus Scent (by gallon **\$.18** oz FoodServiceDirect.com)
- Disinfecting Bathroom Cleaner Lemongrass Citrus Scent (by gallon **\$.18** oz FoodServiceDirect.com)
- Disinfecting Multi-Surface Cleaner Lemongrass Citrus Scent (26 oz \$3.79 Target **\$.15/oz**)
- Disinfectant Spray (Eucalyptus Spearmint & Thyme) (Fresh Citrus & Thyme) (CVS Pharmacy \$7.99 14 oz or \$5.49 at Target **\$.39 - .57/oz**)

Nixall - A household disinfectant made by Seriously Clean, Ltd, a Nixa-based company, was officially cleared by the United States Environmental Protection Agency to be promoted as a product that disinfects SARS-CoV-2, the virus that causes COVID-19. The active ingredient in Nixall is hypochlorous acid, which is the same compound used by white blood cells to kill bacteria, viruses and fungi. Essentially, Nixall is an electrolyzed, oxygenated water. Since it's all-natural, it is considered a truly green product. This disinfectant does not require the use of personal protective equipment (PPE), and is used like other household sanitizers.



Updated at 4 p.m. on April 6. Nixall and Seriously Clean's EPA registration number is 92108-1-88098. When the first two sets of numbers are searched on the EPA's database of [registered disinfectants for SARS-CoV-2](#), the results reveal a company called PCT LTD and a product called "excelyte vet." According to the [EPA's website](#), "if the first two sets of numbers match a registration number that is on List N, the product is the equivalent to the listed product." PCT is a company based out of Little River, South Carolina, and Seriously Clean is a sub-registrant of the company. PCT owns the registration, and Seriously Clean owns the factory and all Nixall products, which is why Nixall or Seriously Clean do not appear on the EPA's website.

https://cdn.shopify.com/s/files/1/0779/9461/files/Nixall_Disinfectant-booklet_4.16.pdf?v=1587016980

Sold by the gallon or quart. It appears that a dilution of 1 part concentrated Nixall disinfectant to 1.5 parts water would be sufficient to apply to surfaces for Covid-19? This would mean a two-gallon order at \$109.95 would make 5 gallons of solution. **Cost \$.17/oz** at Nixall.com (Also recommended for food prep surfaces at same dilution. Useful for spraying resort shelves/dishes?)

PROS: *strong enough for medical grade use, highly non-toxic and non-odorous.*

CONS: *short shelf life. Needs to be used within 30 days of actual production.*

Sol-U-Guard - Sol-U-Guard Botanical Disinfectant uses natural and proven ingredients such as thyme oil and citric acid rather than harsh chemicals like chlorine bleach and quaternary disinfectants.

The EPA (Environmental Protection Agency) recently published a revised and updated list of disinfectants and cleaners that can be used in the effort to prevent the spread of SARS-CoV-2, or Coronavirus disease 2019 (COVID-19). This list includes Sol-U-Guard Botanical® Disinfectant only from Melaleuca.



PROS: *Smells like herbs. [Okay . . .this could be a not-so-good thing for some. Most like it.]*

CONS: *Expensive. \$1.14/oz if buying through Amazon or Ebay (Each 2X Concentrate bottle dilutes 1:1 with water.) Cost savings if you sign up under a distributor.*