

# PreVasive Noroxycdiff & BAC

## The COVID 19 Virus: Understanding & Preventing the Spread of the Infection That's Gone Viral



PreVasive environmentally preferred surface disinfection solutions are used globally to prevent the spread of infectious disease and reduce the introduction of unsafe toxins and their by-products into treatment processes.

Trusted by customers around the world, our EPA compliant disinfectants and biocides are proven to safely and effectively treat microbiological contaminations in complex environments. Today, we are combatting the spread of infection and ensuring a safe and clean world for patients, customers, and citizens around the globe.

By now, everyone has heard of the 2019 Novel Coronavirus (SARS-CoV-2), which has quickly spread from its geographical origins in Wuhan, China, to the U.S., Canada, and a number of European and Asian countries. Due to its rapid spread, with over 40,000 confirmed cases to date, the 2019 Novel Coronavirus has caused regulatory bodies like the International Health Regulations Emergency Committee of the World Health Organization (WHO) to declare the outbreak as a public health emergency of international concern (PHEIC).

As the virus continues to spread, it's important to answer a number of key questions about coronaviruses, the 2019 Novel Coronavirus' pathogenic nature, and guidelines for disinfection:

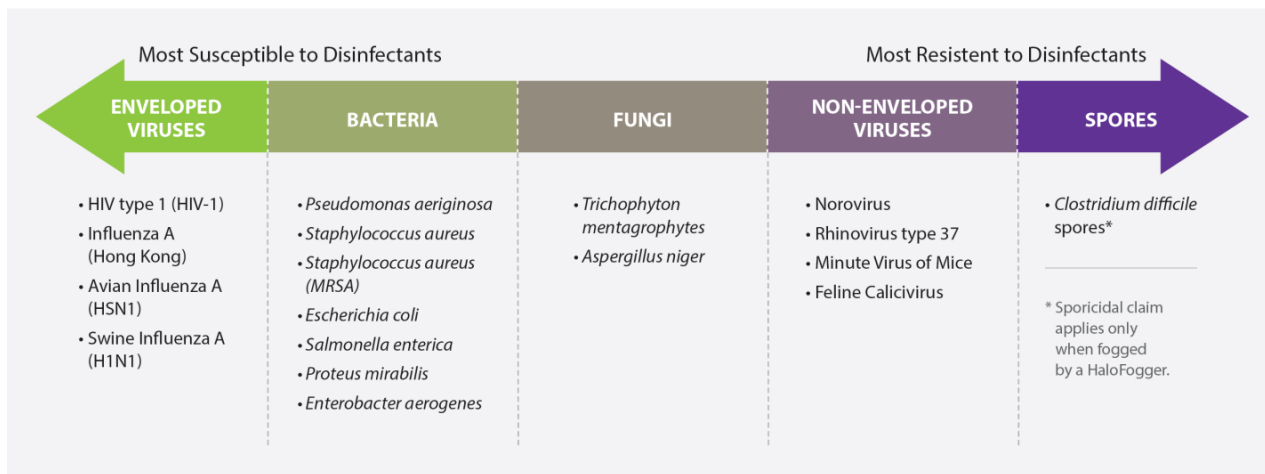
### Are Coronaviruses New?

While the name of the 2019 Novel Coronavirus may imply that coronaviruses are “novel,” this family of viruses has actually been documented since the mid 1960s. Most coronaviruses are present in animals, such as bats and camels, and do not spread to humans. However, in two recent instances—severe acute respiratory syndrome (SARS) and Middle-East respiratory syndrome (MERS)—

the CDC has documented coronaviruses spreading from animals to people. Along with these two earlier coronaviruses, the 2019 Novel Coronavirus marks the third human coronavirus to cause severe illness.

### What Classifies a Virus as a Coronavirus?

Coronaviruses are enveloped viruses, meaning they are RNA viruses that are surrounded by an outer coating comprised of a lipid bilayer (water-insoluble fatty coating). Enveloped viruses spread through a “budding off” process during which a new virus becomes wrapped in an outer coating. However, if this layer is dissolved, these viruses are relatively easy to kill—making them more susceptible to disinfectants than non-enveloped viruses. The Novel Coronavirus therefore falls into a category of viruses that are most susceptible to disinfectants.



The above figure illustrates the susceptibility of pathogen classes to disinfectants. All pathogens reflected in the above are included on the Noroxydciff label (EPA Reg. No. 10324-214-92089).

### How Do We Prevent & Disinfect Against the 2019 Novel Coronavirus?

When preventing the further spread of the Novel Coronavirus, it is critical to listen to guidelines put forth by government protection agencies. According to the CDC, in the absence of an available vaccine against COVID-19, the best way to prevent against infection is to avoid exposure to the virus and take standard preventative actions to respiratory illness (e.g. wash hands; avoiding touching your eyes, nose and mouth; and avoid close contact with people who are sick).

When it comes to disinfecting environments that have been exposed to the virus, the Environmental Protection Agency (EPA) has determined that SARS-CoV-2 has met the conditions outlined in the EPA’s emerging viral pathogens guidance, meaning eligible products can apply to receive kill claim amendments for the coronavirus. This process helps assist healthcare facilities to select a vetted disinfectant against coronavirus. In addition, the World Health Organization (WHO) has recommended using a hospital-grade disinfectant effective against enveloped viruses.

To learn more about disinfecting against COVID-19 with residual effects, contact PreVasive today.

# PreVasive Botanical Cleaner - BAC Botanical Antimicrobial Cleaner

BAC (Botanical Antimicrobial Cleaner) is proven to be a 99.999% effective residual action cleaner.

Over 20 years of research, comprised of expert chemists and engineers, made with organic ingredients and recognized as safe under FIFRA by the EPA and FDA. Within minutes of application, BAC tackles surface damaging mold, organisms, pests, and insects, making it the leading antimicrobial cleaner for both commercial, residential and agricultural use.

BAC is tough enough to clean surfaces in hospitals, schools, daycares and clinics; and yet gentle enough for household surfaces, including: glass, stainless, wood, carpet, fabrics, fruits, vegetables and food processing areas. BAC is safe for humans and pets- safe enough, even, to be used as a produce wash. BAC, when used on industrial remediation projects, both cleans and provides residual protection against future surface damaging mold and mildew.

BAC provides a sustainable, alternative to eco-destroying products. BAC can be applied as a mist (it doesn't need to be shaken or wiped off) and, unlike many harsh chemical products, it has a mild wintergreen or lemon fresh.

BAC's research team created a formula from whole plant naturally sourced essential oils, replacing toxic products and reimagining green, highly effective solutions.

## Other reference documents:

[Preventative Measures In Consideration of Disinfection Protocol For COVID 19](#)

[Confirmed Case COVID 19 Recovery Protocol](#)

[Uses For BAC](#)

[Boeing surface corrosion testing with BAC](#)

[The Vegan Botanical Antimicrobial Cleaner Tech](#)



# **BAC is a much safer, organically grown antimicrobial, anti-fungal and cost-effective pest control product.**

## **The Natural alternative**

- Active ingredient is directly from whole essential oil of white thyme
- Non-toxic
- Non-corrosive
- Not irritating
- Biodegradable
- EPA GRAS

## **EPA, USDA, FDA FIFRA Recognized product: BAC**

- Active-Thyme essential oil, CAS-8007-46-3
- 40 CFR 180.940(a) Food-contact surfaces in public eating places, dairy processing equipment, and food - processing equipment and utensils
- 40CFR 180.960 any food use site
- Minimum Risk Exemption 40CFR 152.25(t)
- EPA (GRAS) - Generally recognized as Safe
- 40 CFR 180.910 / 40 CFR 180.920 FIFRA 25 B-For use on growing crops or raw agriculture products after harvest.
- 40 CFR 180.930 for use on animals.

## **Botanical Antimicrobial Cleaner BAC)**

- Thyme essential oil .23% active
- 300% better efficacy than competitors with a light wintergreen fragrance
- Much less expensive than competitors
- USDA, USEPA, FDA Recognized FIFRA 25-B Generally regarded as safe!
- Spray and wipe or spray and leave on porous and non-porous

Microemulsion systems are preferred for their long-term thermodynamic stability, low viscosity, cost economy, and aesthetic appeal. Such systems provide a method for preparing an isotropic mixture of oil and water. Major advantage of micro emulsion is in usage of the widely, easily available, environmentally friendly, and superior efficient diluents. Formulations of microemulsions are difficult tasks. These compositions give maximum stability with the optimum usage of surfactants with maximum efficacy. (BAC) is a high efficiency micro-emulsion with latest technology whole botanical essential oils and plant surfactants.

# What Are “6 Logs,” and Why Do They Matter in Preventing Infections?



## **PreVasive- Preventative measures in consideration of Disinfection Protocol for COVID19.**

Disinfection professionals today are generally concerned with what percentage of a given germ is killed by a process or disinfectant. The highest percentage that is generally used is **99.9999%**. In scientific research papers, this percentage is written as “a [6 log<sub>10</sub> reduction](#)”, but in medical shorthand it’s known as “a greater-than 6-log reduction” or “a 6-log kill rate.”

So how are log rates calculated? Scientists use a logarithmic scale. Log reduction stands for a 10-fold (or one decimal point) reduction in bacteria, meaning the disinfectant reduces the number of live bacteria by 90 percent for every step.

To help understand the value of each additional “log”, let’s do the math for a small colony of a million MRSA bacteria under the edge of a patient’s table in a hospital:

- A 1-log kill reduces the colony to 100,000 MRSA bacteria after a 90% reduction;
- A 2-log kill reduces the colony to 10,000 bacteria after a 99% reduction;
- A 3-log kill reduces the colony to 1,000 bacteria after a 99.9% reduction;
- A 4-log kill reduces the colony to 100 bacteria after a 99.99% reduction;
- A 5-log kill reduces the colony to 10 bacteria after a 99.999% reduction;

- A 6-log kill reduces the colony to 1 MRSA bacterium after a 99.9999% reduction.

So, a UV light that manages to get a 2-log kill leaves 100 times more bacteria to breed and infect the next patient than does a process that gets a 4-log kill. **One hundred times** more pathogens as a penalty for just a 2-log difference in killing ability!

Now let's switch the conversation to the hardest-to-kill pathogens known as [Clostridioides difficile](#), or C. diff. According to the CDC, healthcare-acquired C. diff infections kill 28,500 of the 500,000 patients infected in U.S. hospitals and nursing homes annually. C. diff is difficult to control because it forms spores that survive on surfaces for months and are highly resistant to most disinfectants. The [Environmental Protection Agency](#), the US government regulator of antimicrobial disinfectants, requires a disinfectant to produce at least a 99.9999% reduction in C. diff spores to be able to claim it as an effective disinfectant against this most difficult to control pathogen. The EPA allows products that meet their standards to be called sporicides, the equivalent to what the FDA calls sterilants.

So, a UV light that manages somehow to get a 2-log kill on an array of one million C. diff spores spread around a room will leave 10,000 of them on surfaces, each fully capable of causing the next patient in that room to develop a devastating and potentially fatal infection. The Noroxydiff & BAC (Bacteria Antimicrobial Cleaner), on the other hand, produces a non-corrosive mist that has been validated by the EPA to achieve a 6-log kill of C. diff spores in all the nooks and crannies of complex hospital rooms. (The laws of physics prevent any commercially viable UV system from accomplishing that high a kill rate because of shadows and distance from the light source.)

Following treatment, the Noroxydiff & BAC System leaves 1 spore still alive.

The UV light leaves **ten thousand times** more viable spores than the Halo Disinfection System would in that same room. While the infection rate will not be 10,000 times higher, the question remains...

To which room would you rather have your mother admitted?

The Noroxydiff & BAC System kills 6-logs. Don't settle for anything less.



# PreVasive Industries

- Restoration / Remediation / Abatement

After 20 plus years in the Restoration industry we finally developed safer more effective products and procedures for our employees and clients.

BAC Botanical Antimicrobial Cleaner kills 99.999% of odor-causing bacteria, perfect for water damage, sewage, and mold remediation projects. OxyOrange for high level decontamination and WASP our long term mold resistant sealant with seven patents alone. When you need instant stain removal results try our Botanical HP with a long lasting residual antimicrobial Silver-ion & Zink Shield.



# Healthcare

Our **Noroxycdiff** EPA Registered one step hospital use Sporicidal Disinfectant Cleaner is effective in 2 minutes against Cdiff spores. Effective against Tb and Norovirus. Kills 99.9999% of most germs in 30 seconds and will meet and exceed tough industry standards for use in healthcare facilities. Very pleasant fragrance unlike most disinfectants.





# Education & Daycare

PreVasive 100% botanical disinfectant cleans and kills bacteria, virus's, mold and mildew to create healthy learning environments and reduced absenteeism for children, students and staff.

Completely safe for kids, pets and people with a very pleasant fragrance. Easy to apply daily, weekly, or monthly to help control the spread of unwanted germs causing outbreaks of potential health issues



# Nursing Homes

PreVasive botanical infection prevention is for house-keeping, odor control, pest control, carpet stain removal, service kitchen and dining room cleaning. Our products help keep residents, staff and visitors healthy and safe all while leaving a very pleasant fragrance unlike most cleaning supplies used today.



# Agriculture

PreVasive Rhizosphere builds the soil while increasing better germination with deeper healthier root growth and reduced fertilizer needs. Experience faster growth, greener thicker lawn blades, increased fruit crop production, flowering, and overall health of soil eco-system. Perfect for no till farming.



# Athletic Facilities

PreVasive Pathogen Control Solutions prevent the spread of virus's, germs and infection. Our products help keep members, staff and visitors healthy and safe. Perfect for daily, weekly germ elimination, odor management and the killing of bacteria. Easy to apply and make part of your maintenance program.



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# . Food Processing & Sanitation

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We deliver pathogen control solutions to help prevent the spread of food borne illness thus maintain a food quality so critical for your brand's reputation.



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# . Transportation

PreVasive Pathogen Control Solutions can keep your guests and employees safe and healthy while allowing you to avoid an outbreak of health issues. Perfect for killing germs, removing odors and eliminating bacteria on school buses, public transportation and even personal vehicles.



# Cruise Lines

- PreVasive Pathogen Control Solutions can keep your guests and employees safe and healthy while allowing you to avoid an outbreak of health issues aboard your cruise ship.

