

# ActivePure® TECHNOLOGY

Air You Can Trust

## ActivePure® Validation

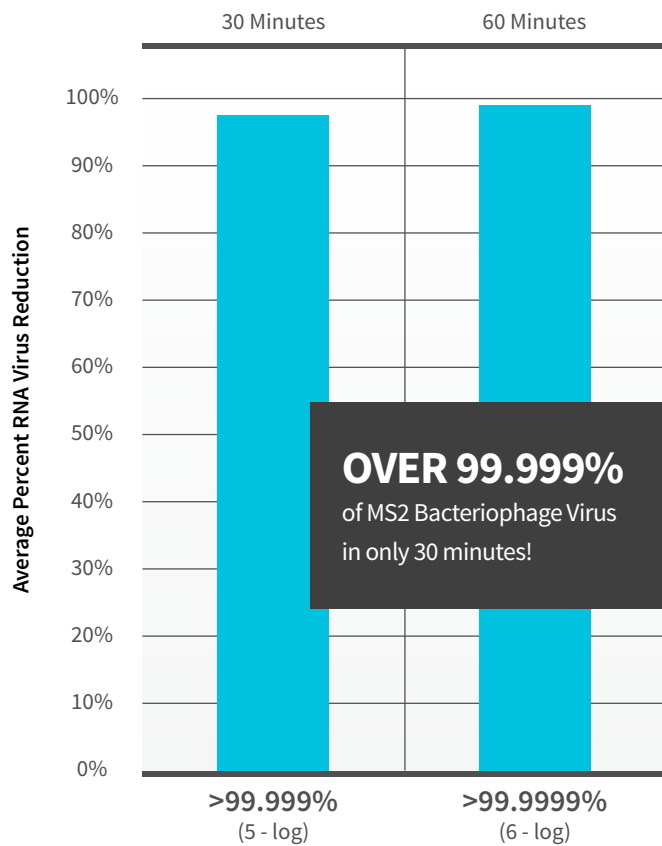


Air Scrubber  
By Aerus

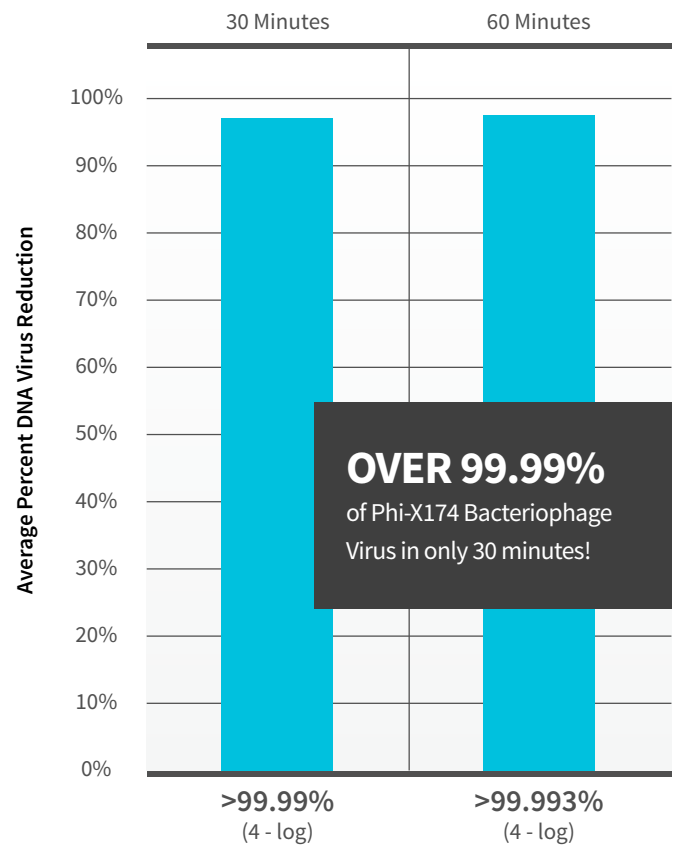


## FDA MEDICAL DEVICE TESTING **AGAINST RNA VIRUS AND DNA VIRUS.**

Reduction of Airborne Contaminants MS2  
bacteriophage RNA Virus

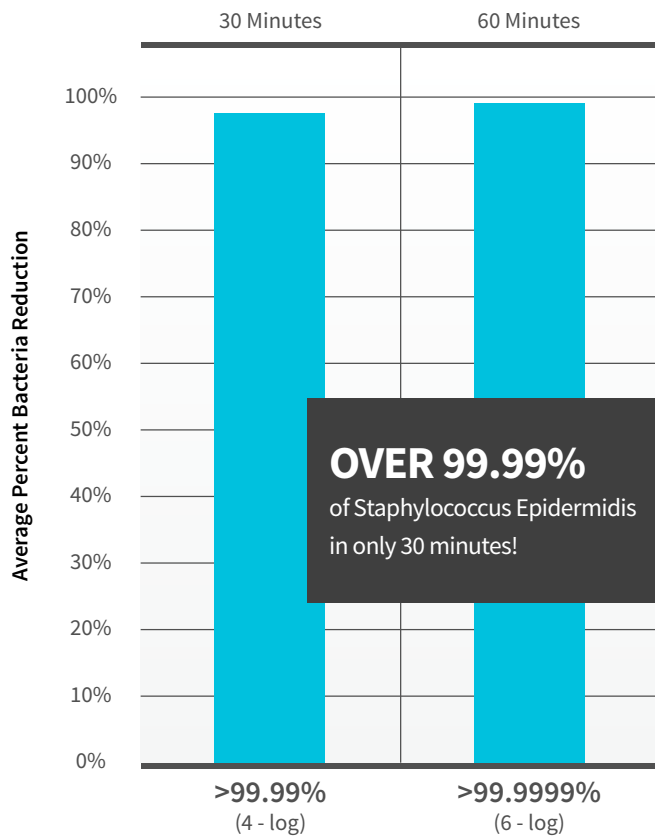


Reduction of Airborne Contaminants  
Phi-X174 bacteriophage DNA Virus

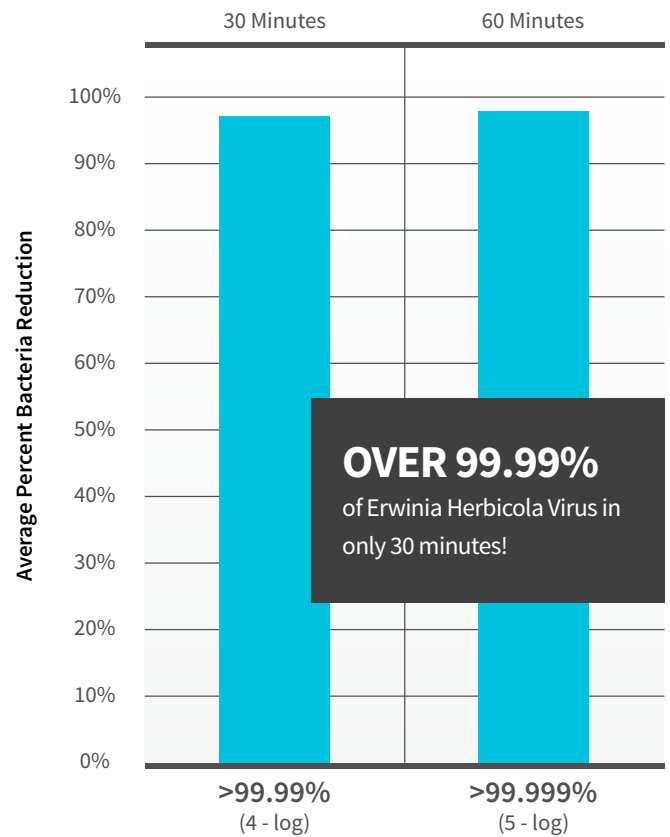


## FDA MEDICAL DEVICE TESTING **AGAINST GRAM-POSITIVE AND GRAM-NEGATIVE BACTERIA.**

Reduction of Airborne Contaminants  
Staphylococcus epidermidis –  
Gram-positive Bacteria

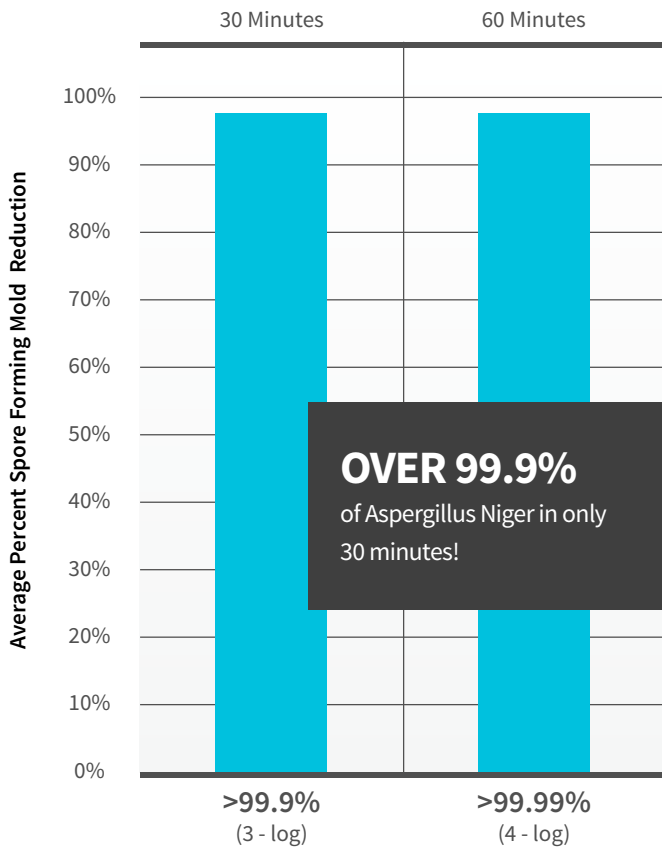


Reduction of Airborne Contaminants  
Erwinia herbicola – Gram-negative Bacteria

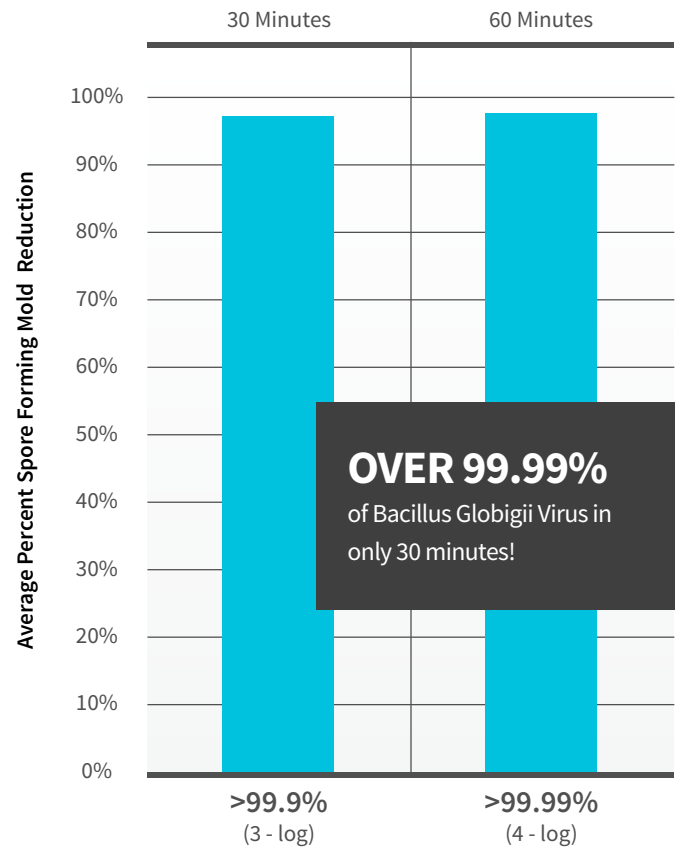


## FDA MEDICAL DEVICE TESTING **AGAINST FUNGAL MOLD AND BACTERIAL MOLD.**

Reduction of Airborne Contaminants  
**Aspergillus niger (Fungal Mold)**



Reduction of Airborne Contaminants  
**Bacillus globigii (Bacterial Mold)**

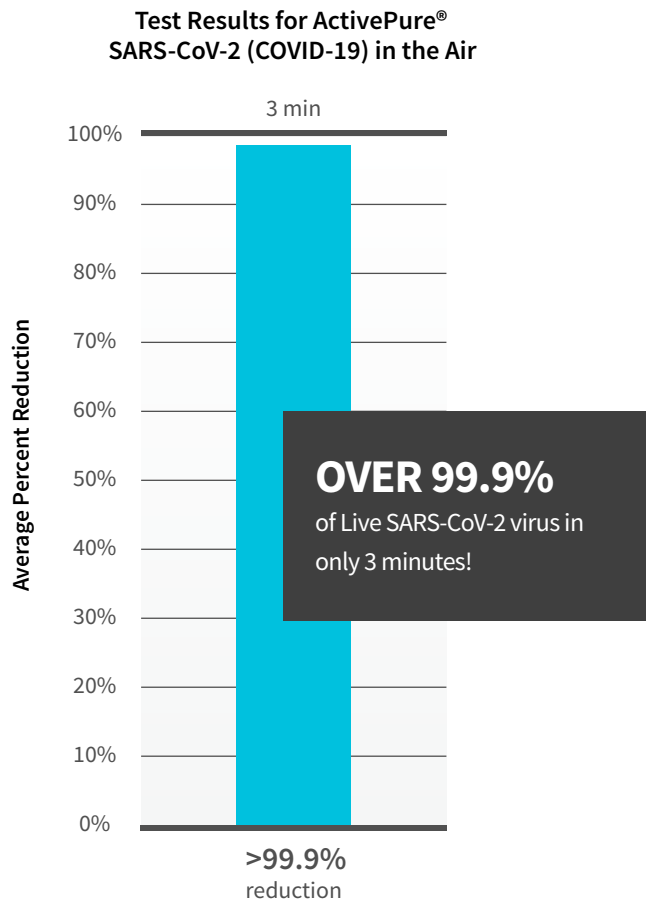


## ELIMINATED OVER 99.9% OF AIRBORNE SARS-COV-2 VIRUS IN JUST 3 MINUTES.

- Tested at UTMB CDC/Military Lab
- Tested per FDA

*"These results demonstrate the effectiveness of the technology"*

– Dr. William S. Lawrence, PhD  
Director of the Aerobiology Services Division  
UTMB's Galveston National Laboratory



Outside of control group - over 99.9% reduction of SARS-CoV-2.



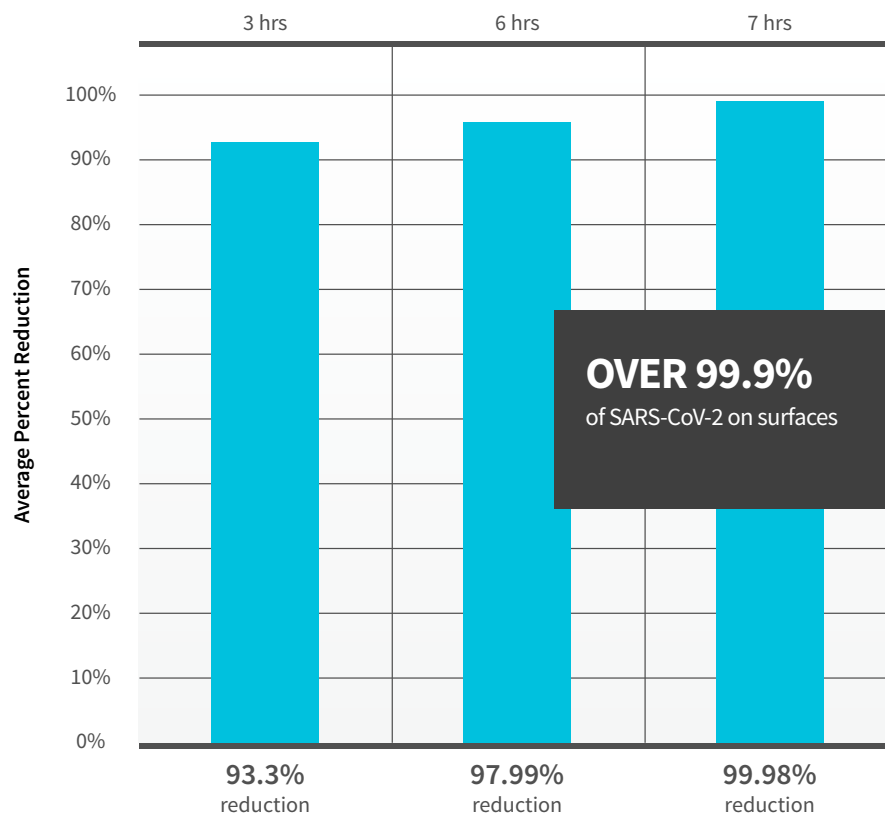
## ELIMINATED OVER 99.9% OF SURFACE SARS-COV-2 VIRUS



### Preface

- Tested at MRIGlobal
- Tested per FDA guidelines and protocols

Test Results for ActivePure® SARS-CoV-2 (COVID-19) on Surfaces

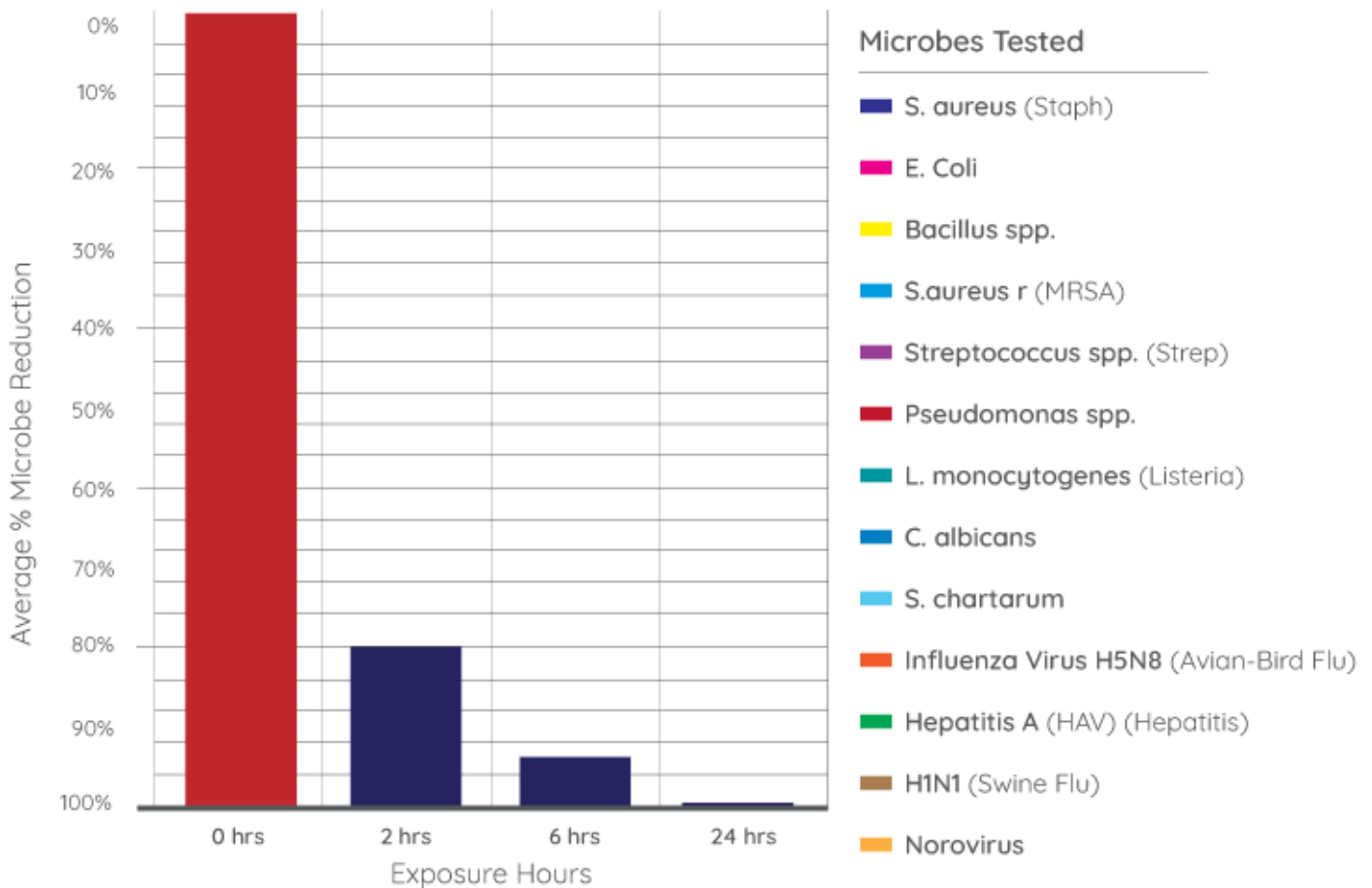


**AVG 80%  
REDUCTION OF  
MICROBES IN 2 HRS!**

**AVG 95%  
REDUCTION IN  
JUST 2 HRS!**

**AVG > 99%  
REDUCTION IN  
JUST 24 HRS!**

REDUCTION OF SURFACE CONTAMINANTS -  
TESTING CONDUCTED BY **KANSAS STATE UNIVERSITY**

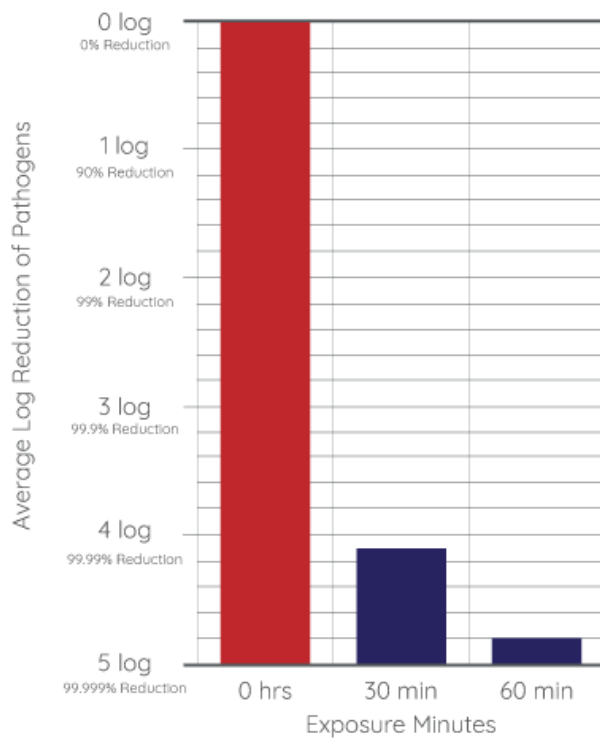


\* Published scientific studies conducted at Kansas State University demonstrated that ActivePure<sup>®</sup> Technology substantially reduces microbial populations on surfaces. The study's results are being provided solely for informational purposes. The study's results have not been reviewed by the FDA, EPA or any other governmental agency. Our products are not medical devices and are not intended to diagnose, treat, or cure any disease. We make no claims and no claims should be inferred as to the efficacy of our products to sanitize, disinfect or kill germs or other antimicrobials.

**AVG 3.83% LOG  
REDUCTION IN 30 MIN**

**AVG 4.92% LOG  
REDUCTION IN 60 MIN**

REDUCTION OF AIRBORNE CONTAMINANTS -  
TESTING CONDUCTED BY **INDEPENDENT LAB**



#### Pathogens Tested

- **RNA Viruses** – \*MS2 bacteriophage, influenza, common cold, hepatitis C, Ebola, SARS, rabies, polio, measles, West Nile Fever, hepatitis E
- **DNA Viruses** – \*Phi-X147 bacteriophage, herpes virus, hepatitis B, adenovirus, HPV, small pox, parovirus B19
- **Gram-positive Bacteria** – \*Staphylococcus epidermidis, Micrococcus spp., Streptococcus spp., Listeria spp., C. tetanomorphum
- **Gram-negative Bacteria** – \*Erwinia herbicola, Escherichia coli, Pseudomonas, Klebsiella, Salmonella, Haemophilus, Bordetella, Enterobacter
- **Bacterial Spores** – \*Bacillus subtilis, Clostridium difficile, Sporolactobacillus dextrus
- **Fungal Spores** – \*Aspergillus versicolor, Cladosporium herbarum
- **Regular (fibrous) Fungi** – \*Aspergillus niger, S. chartarum (Black Mold), Candida auris

\*Actual pathogen tested. Other pathogens listed are in the same family. Some tests were done with ActivePure® in combination with additional technologies, i.e. ionization, HEPA filtration and carbon filtration.

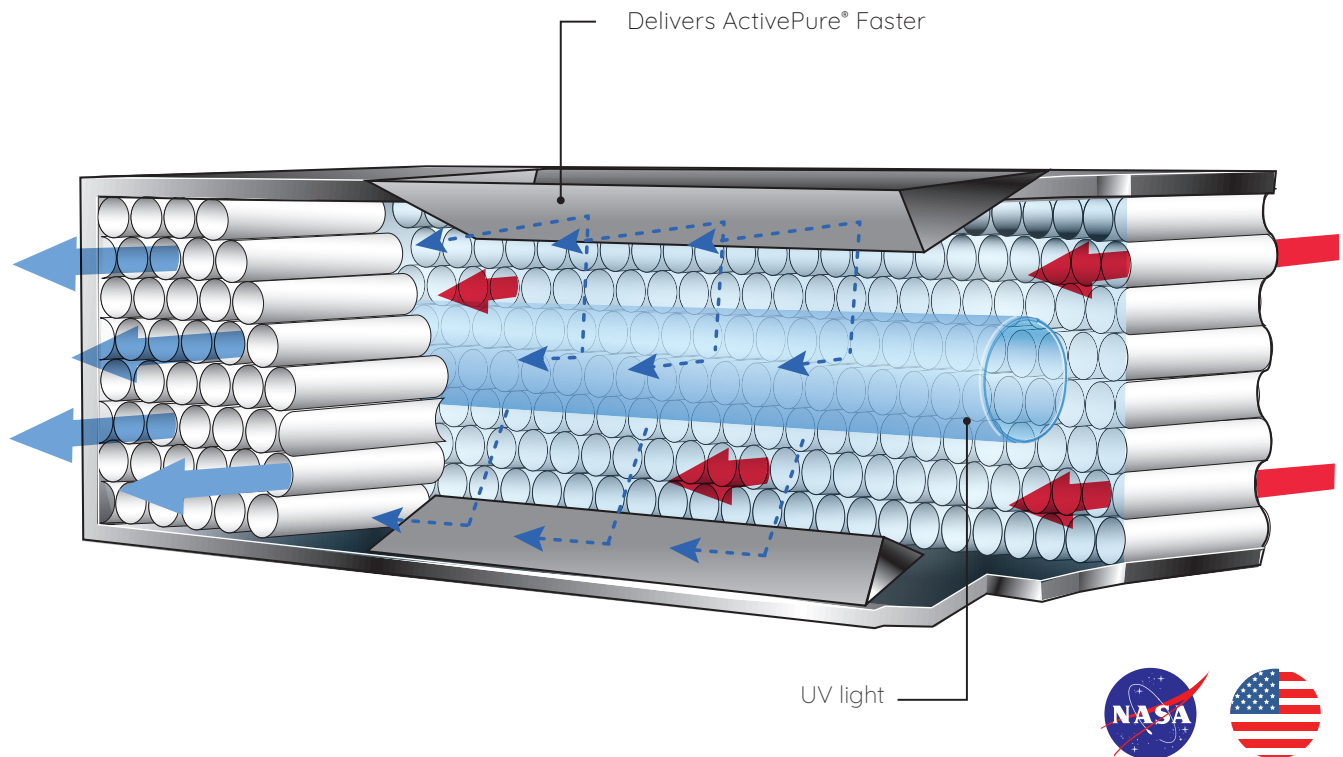
\*The study's results are being provided solely for informational purposes. The study's results have not been reviewed by the FDA, EPA or any other governmental agency. Our products are not medical devices and are not intended to diagnose, treat, or cure any disease. We make no claims and no claims should be inferred as to the efficacy of our products to sanitize, disinfect or kill germs or other antimicrobials.



## NEW PATENTED V-GROOVE CELL

### HOW IT WORKS

Our proprietary technology uses light waves and a catalytic process to produce scrubber ions that travel through the ductwork into every corner, effectively treating and purifying the entire space. This ActivePure Technology continuously protects and purifies the air, and attacks contaminants on all surfaces.





Dr. Deborah Birx joins ActivePure<sup>®</sup>  
Technologies as Chief Medical  
and Science Advisor

## **ActivePure Technologies Appoints Deborah Birx, M.D.**

*Dr. Birx encourages every indoor environment to have ActivePure Technology*

DALLAS (March 12, 2021) Deborah Birx, M.D., a physician, scientific researcher and former White House Coronavirus Coordinator, will join Dallas-based [ActivePure Technologies](#) as chief medical and scientific advisor, the company's CEO, Joseph Urso, announced today. ActivePure is a global provider of air and surface products that destroy the COVID-19 virus and other pathogens in the air and on surfaces, using a unique, patented technology.

"I am pleased to be joining ActivePure Technologies, a company that provides a critical layer of protection against this virus and other pathogens," said Birx. "My work for ActivePure is a logical extension of my 40-year career in science and public service. ActivePure is a company rooted in science, and I will be doing my best to continue to save lives and ensure Americans are safe at school, with their families, at work and in recreation."

"Dr. Birx, one of the highest-ranking infectious disease experts in the world, understands the value of ActivePure Technology. As a globally recognized health care expert, we are fortunate to have Dr. Birx join our team," said Joe Urso, CEO of ActivePure Technologies. "We are at a pivotal moment with COVID-19. Americans want to get back to work, back to school and back to normal, but we also want to be safe. The fastest and best way to help keep people safe indoors is with ActivePure. Dr. Birx's unique perspectives and experience will help elevate our science-backed, medical-grade technology and bring it to all indoor spaces."

In December, the University of Texas Medical Branch confirmed that the [ActivePure Technology](#) inside two of the company's devices destroys over 99.9% of airborne COVID-19 viruses within three minutes. In September, the Aerus Hydroxyl Blaster with ActivePure Technology demonstrated in an FDA-compliant laboratory MRI Global, destroys 93% of COVID-19 viruses on surfaces in three hours and over 99.9% in seven hours.



Deborah Birx, MD, Chief Scientific  
and Medical Advisor for ActivePure  
Technologies

As America begins to scale back their statewide safety mandates, many companies, schools, restaurants, and places of worship are continuing to enforce protocols from the U.S. Centers for Disease Control and Prevention. They include reducing capacity and requiring face masks for the safety and comfort of all. Americans want to return to their normal lives and routines, but the only way to ensure peace of mind is to do so with added layers of protection such as ActivePure Technology. Dr. Birx joined the brand because she trusts and believes that its ActivePure Technology is the solution.

ActivePure Technology, backed by science, is the fastest-acting, most powerful surface and air disinfecting purifier available that is safe for use in occupied spaces. It is the only technology that works immediately, in real-time. The brand, whose roots first began with NASA, has more than 100 devices that contain ActivePure, including portable, installed, and hand-held units. The portable units allow customers to operate ActivePure within minutes by simply plugging the device into a wall socket. Most ActivePure solutions cost about \$1 a square foot for the areas they protect. In 2020, the ActivePure Medical Guardian was registered and cleared as an FDA Class II Medical Device. Currently, the Cleveland Clinic is conducting a two-year clinical trial to study the impact of ActivePure on reducing surgical site infections.

Birx, a retired Army physician who rose to the rank of colonel, has served three presidents: George W. Bush, Barack Obama, and Donald Trump. As U.S. Global AIDS Coordinator for seven years, she headed the President's Emergency Plan for AIDS Relief, the largest global health program launched by a single nation in history. She has published over 220 manuscripts in peer-reviewed journals and authored nearly a dozen chapters in scientific publications.

Birx also joined the George W. Bush Institute in Dallas as a fellow in global health.

To learn more about the ActivePure Technology, its uses and scientific studies, please visit [ActivePure.com](https://www.ActivePure.com) or call 888-217-4316.

###

#### **ABOUT ACTIVEPURE TECHNOLOGIES, LLC:**

Privately held ActivePure Technologies, LLC, is the global leader in active, continuous surface and air disinfection systems for health care and educational institutions, commercial and public facilities, and hospitality and residential applications, since 1924. ActivePure Technologies includes the patented ActivePure Technology, the most powerful surface and air purification technology ever discovered that is backed by science. With origins in the NASA program, it has been honored and recognized in the Space Foundation Hall of Fame for the impact it has had on mankind. ActivePure Technology has evolved to reduce exposure to airborne and surface diseases, including RNA and DNA viruses including the COVID-19 virus, bacteria and molds by more than 99.9%. ActivePure Technologies' nine brands include [Aerus](#), [Enterprise Solutions](#), [activeTek Environmental](#), [Aerus Global](#), [ActivePure Medical](#), [ActivePure Technology](#), [Allergy Buyers Club](#), [Beyond by Aerus](#), [The Pure Company](#) and [Vollara](#). The ActivePure Medical Guardian is registered and cleared as an FDA Class II Medical Device. For more information, please visit [ActivePure.com](https://www.ActivePure.com) or call (888) 217-4316.

#### **MEDIA CONTACTS:**

Jo Trizila, TrizCom PR on behalf of ActivePure Technologies

Email: [Jo@TrizCom.com](mailto:Jo@TrizCom.com)

Office: 972-247-1369

Cell/Text: 214-232-0078

Ann Littmann, TrizCom PR on behalf of ActivePure Technologies

Email: [Ann@TrizCom.com](mailto:Ann@TrizCom.com)

Office: 972-247-1369

Cell/Text: 469-978-1793

## ACTIVEPURE® TECHNOLOGY

Safe, Effective, Proven, Certified

ActivePure® is an exclusive environmental technology that can solve many everyday indoor air and surface contamination problems. Traditional passive technologies, such as HEPA, use filtration or electrostatic systems, which remove contaminants only if and when they travel through the purification unit. These traditional filtration systems can help reduce air pollution to a degree, but they do not reduce surface contamination at all and do not adequately reduce airborne contaminants. Our proprietary ActivePure® Technology actively targets contaminants in the air and on surfaces, eliminating them on contact.

ActivePure® Technology is derived from NASA Technology as used on the International Space Station. It is the only Certified Space Technology in the world in its class. ActivePure® Technology utilizes a proprietary hydrophilic photo catalytic coating, consisting of non-nano titanium dioxide with a proprietary combination of additional transition elements to enhance efficiency. Activated by a specific wavelength of ultraviolet light, oxygen and humidity are extracted from the air to create a host of powerful oxidizers that target air and surface pollution. These oxidizers are extremely effective at destroying bacteria, volatile organic compounds (VOCs) and other environmental contaminants. ActivePure Technology does not create harmful chemicals but instead uses oxidizers found naturally occurring in the environment. These oxidizers are not harmful to humans, pets or plants and are complete safe for indoor use.

The key oxidizers created by ActivePure® Technology are the following:

- Hydrogen Peroxide ( $H_2O_2$ )
- Hydroxyls ( $OH\cdot$ )
- Hydroxyl Radicals ( $\cdot OH$ )
- Super Oxides ( $O_2^-$ )

### Hydrogen Peroxide

A major oxidizer created by ActivePure® Technology is hydrogen peroxide ( $H_2O_2$ ), which has proven to be effective against indoor pollutants and contaminants on surfaces and in the air. ActivePure® Technology produces hydrogen peroxide molecules from the oxygen and humidity already present in the air. The hydrogen peroxide molecules are then carried throughout the indoor environment, neutralizing pollutants and contaminants in places that other technologies and filtration systems can't reach. Because hydrogen peroxide molecules have both positive and negative charges, they are drawn to pollutants and contaminants by the process of electrostatic attraction. Contaminants are then safely broken down into oxygen ( $O_2$ ) and water ( $H_2O$ ) vapor. Hydrogen peroxide is odorless, colorless and safe to use in occupied spaces. According to the Occupational Health and Safety Administration (OSHA), exposure to one part per million (1.0~ ppm) of hydrogen peroxide is considered safe throughout the day. ActivePure® Technology produces only 0.02 ~ 0.04 ppm, well below the OSHA limit.

### Hydroxyls

Another important oxidizer created by ActivePure® Technology is hydroxyls. Hydroxyls ( $OH\cdot$ ) are safe, naturally occurring, powerful oxidizers that quickly and safely neutralize many airborne and surface contaminants, odor-causing bacteria and chemical VOCs. As part of the ActivePure® process, hydroxyls are formed when an ultraviolet light of specific wavelengths is absorbed by the unit's proprietary coating. The coating strips the hydrogen (H) atoms from water molecules ( $H_2O$ ) in the ambient air, forming negative hydroxyls ( $OH\cdot$ ). These hydroxyls break down carbon and hydrogen-based VOCs and other organic contaminants, converting them into harmless carbon dioxide ( $CO_2$ ) and water ( $H_2O$ ) vapor.

While extremely effective at destroying odors, bacteria, VOCs and other contaminants, hydroxyls are completely safe for human, animal and plant exposure indoors. The hydroxyls produced by ActivePure® Technology are the same as those produced naturally in the earth's atmosphere by the reaction of UV rays and water vapor, and function to safely and naturally "scrub" and decontaminate indoor environments.

## Hydroxyl Radicals

---

The hydroxyl radical,  $\cdot\text{OH}$ , is the neutral form of the hydroxyl ion ( $\text{OH}^-$ ). Hydroxyl radicals are diatomic molecules that are highly reactive, so reactive that they are instantly neutralized when they contact organic compounds such as fungi, bacteria viruses and many chemical VOC's by cracking the molecular bonds. Like the Hydroxyl ion, Hydroxyl radicals are formed by the reaction of UV light disassembling water vapor ( $\text{H}_2\text{O}$ ) to get a hydrogen atom (H) and oxygen ( $\text{O}_2$ ) which are combined together to form the hydroxyl radical ( $\cdot\text{OH}$ ). Hydroxyl molecules are so small that 10 billion of them would fit into one raindrop and because they are so quickly reactive, they are completely safe for human, animal and plant exposure indoors.

## Super Oxides

---

Super oxides are oxygen molecules that arise when free hydrogen atoms (H) combine with ozone ( $\text{O}_3$ ) are created in small amounts by nature in the air. When combined, they form the powerful oxidizers oxygen ( $\text{O}_2$ ) and hydroxyls ( $\text{OH}\cdot$ ). ActivePure® Technology utilizes a UVC light source, naturally occurring ozone ( $\text{O}_3$ ), humidity and a photo catalyst to create powerful super oxides that eliminate bacteria, viruses, mold and other contaminants. This technology is not only safe for human exposure, but is significantly more effective at destroying contaminants than simple UV technology alone. In the process of creating super oxides, ActivePure® actually reduces the amount of ozone ( $\text{O}_3$ ) that naturally exists in the air.

Super oxides have been utilized for decades in food processing plants, hospitals, and dental and doctor's offices to control environmental contamination and disinfect safely without chemicals.

## Product Efficacy and Testing

---

ActivePure® Technology has consistently proven its ability to safely control and neutralize contaminants such as viruses, bacteria, mold, fungi and VOCs in numerous tests and studies, without harm to humans, animals and plant life. Extensive laboratory testing conducted at Kansas State University showed ActivePure® Technology to be effective against H1N1, H5N8, MRSA, Staph, Streptococcus, E-Coli, Listeria, Bacillus spp, Stachybotrys Chartarum and more. These university studies have shown that ActivePure® can reduce at least 96.4% and as much as 99.99% of surface and airborne contaminants within the first 24 hours.

Further testing was commissioned at the University of Cincinnati Center for Health-Related Aerosol Studies to investigate ActivePure® Technology's kill rate for airborne bio-contaminants. These tests established the extraordinary effectiveness of ActivePure® Technology in safely destroying contaminants. In the tests, 90% of the airborne pathogens measured were reduced in only 30 minutes, a rate 50 times more effective than normal filtration.

## No Ozone

---

Ozone ( $\text{O}_3$ ) is created naturally by nature and is present in our air, and can also be created by man-made technologies. The EPA has determined that ozone at levels in excess of 0.07 ppm may be damaging to health. The state of California has implemented even tighter ozone levels at 0.05 ppm. ActivePure® Technology has been proven not to create ozone as it operates and can actually help lower naturally occurring ozone, as it creates safe super oxides ( $\text{O}_2^-$ ) which in turn eliminate harmful pathogens.

## Space Foundation - Technology Certified

---

The Space Foundation has recognized ActivePure® and our company for utilizing technologies originally invented for use in space programs to eliminate VOCs and other contaminants and adapting these technologies for everyday use. ActivePure® Technology is based on a variation of technology originally developed for use by NASA on the International Space Station and is recognized globally as the only Certified Space Technology in its class. You can only get this technology from us.

## Applications

---

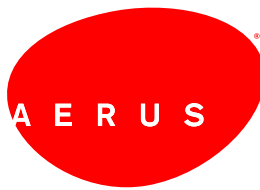
Our ActivePure® Technology has been successfully and safely used in hospitals, homes, doctor's offices, professional sports facilities and other applications across the world.

Should you have any further questions on our technology please feel free to contact us.



Dr. Troy Sanford, CN, ND





## **Aerus' ActivePure Technology Inducted Into Prestigious Space Technology Hall of Fame: One of Only 75 Technologies to Receive Such an Honor in 30 Years**

DALLAS (April, 6, 2017)...[Aerus LLC, the Healthy Home leader](#) committed to providing cutting-edge technologies to create the healthiest homes around the world, is honored to [announce](#) the induction of its proprietary ActivePure Technology into the Space Technology Hall of Fame, a Space Foundation program aiming to increase public awareness of the benefits of space exploration and encouraging further innovation of NASA-adapted technologies to improve the quality of life for humanity.

[ActivePure Technology](#) is one of only 75 technologies that have been inducted into the Space Technology Hall of Fame in the past 30 years. Past inductees have included energy-saving technologies, satellite and telecommunication technologies, practical commercial devices and health improvement technologies, including LASIK eye surgery, implantable pacemakers and hearing aids and many other devices that improve the quality of life for millions of people every day.

The induction ceremony takes place on April 6 in Colorado Springs, as the culminating event of the 33rd Space Symposium, a three-day conference attended by over 11,000 space leaders from around the world. The Space Technology Hall of Fame Dinner honoring the 2017 inductees will be co-sponsored by SpaceX, a space exploration company founded in 2002 by Elon Musk.



ActivePure Radiant Catalytic Ionization (RCI) Technology was initially developed by NASA scientists to eliminate ethylene gas onboard the International Space Station and has been adapted and enhanced by Aerus to benefit people all around the world.

[Beyond by Aerus' ActivePure Technology](#) has been tested in both university and laboratory environments, and also been used in numerous commercial and industrial settings that face particular high-risk issues. ActivePure Technology is engineered to eliminate contaminants in the air and on surfaces and is currently used in homes, offices, hospitals, daycares, hotels and professional sports facilities. It is proven to destroy airborne and surface viruses, mold, fungus, volatile organic compounds, and bacteria such as MRSA, E-coli and Staph.

"We are very fortunate to live in a time when space-age technology and innovation have such remarkable implications for us here on Earth. Since ActivePure Technology was first deployed on the space shuttle Columbia and in subsequent successful applications aboard the International Space Station, we have been able to offer ActivePure Technology in a variety of products by Aerus, activTek, Vollara and Beyond by Aerus to improve people's lives," said Joe Urso, Aerus LLC CEO, who along with Andy Eide, Aerus LLC Vice

President, Product Development and Manufacturing, will be individually inducted into the Space Technology Hall of Fame this year, "the induction into the Space Technology Hall of Fame is a great honor and is a culmination of years of research and testing to bring this product to the people who need it the most."

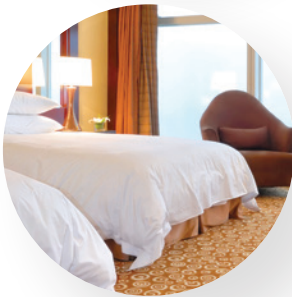
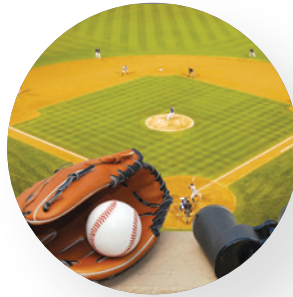
From state-of-the-art floor care systems to air and water purification systems and beyond, Aerus has created clean, safe and healthy indoor environments for over 50 million businesses and homes worldwide. Those who suffer from asthma or allergies, new parents or caregivers, pet lovers or anyone devoted to living a healthier life can benefit from the cleansing and purifying components of ActivePure Technology.

###

#### **ABOUT AERUS LLC**

Since 1924, [Aerus LLC](#) (formerly Electrolux USA) has been the Healthy Home leader committed to providing cutting-edge technologies and unparalleled service to create the healthiest homes and living environments in North America and in 70 countries around the world. The Aerus family of companies includes Aerus, Beyond by Aerus, Vollara, ActivTek, and AirScrubber Plus. They are the exclusive worldwide owners of ActivePure Technology, the most powerful air and surface purification technology ever discovered, and the only one in its class recognized by the Space Foundation as Certified Space Technology. ActivePure Technology has been engineered by Aerus based on technology originally developed by NASA.

## INSTALLATIONS EVERYWHERE



- Hospitals
- Doctors Offices
- Dental Offices
- Schools
- Public Facilities
- Sports Facilities
- Businesses
- Hospitality
- Worship Centers
- Military

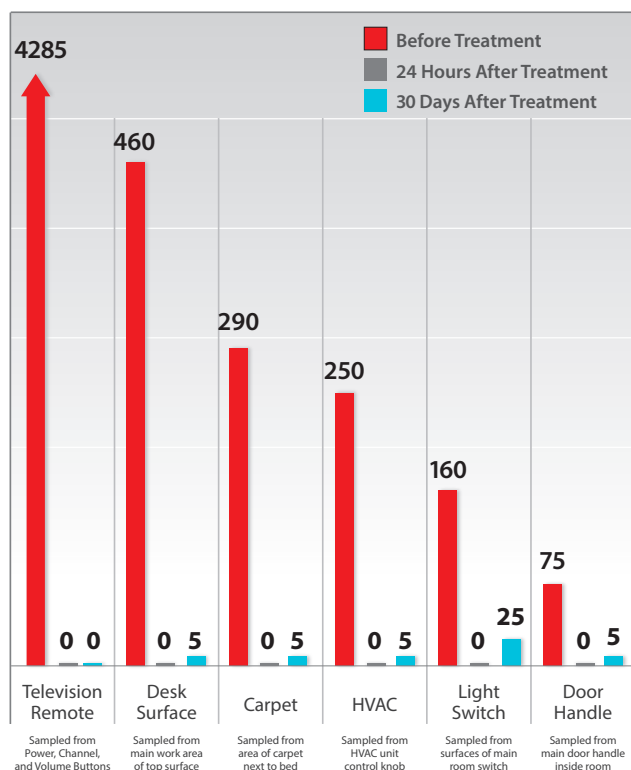


## BACTERIA

### HOTEL TYPICAL BEFORE & AFTER BENEFITS

#### Bacteria Colony Forming Unit (CFU) Count

Combined Results From Three Rooms

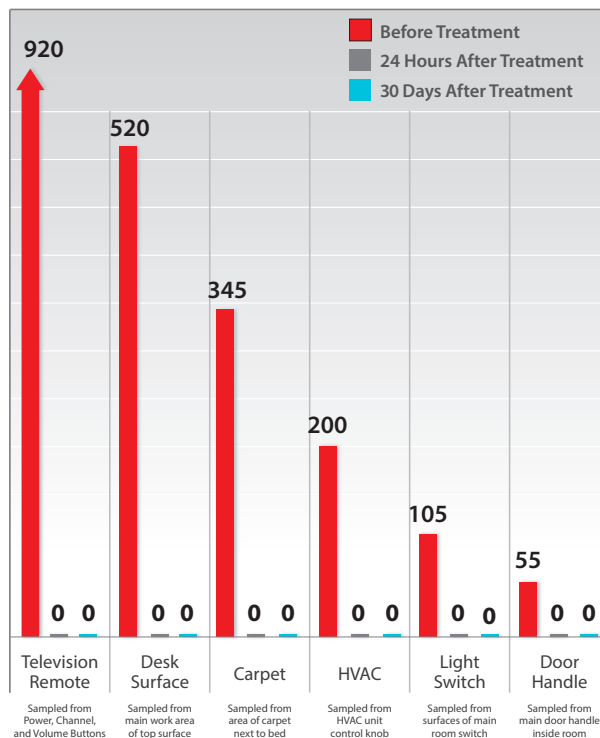


## FUNGI

### TYPICAL BEFORE & AFTER BENEFITS

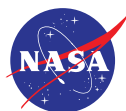
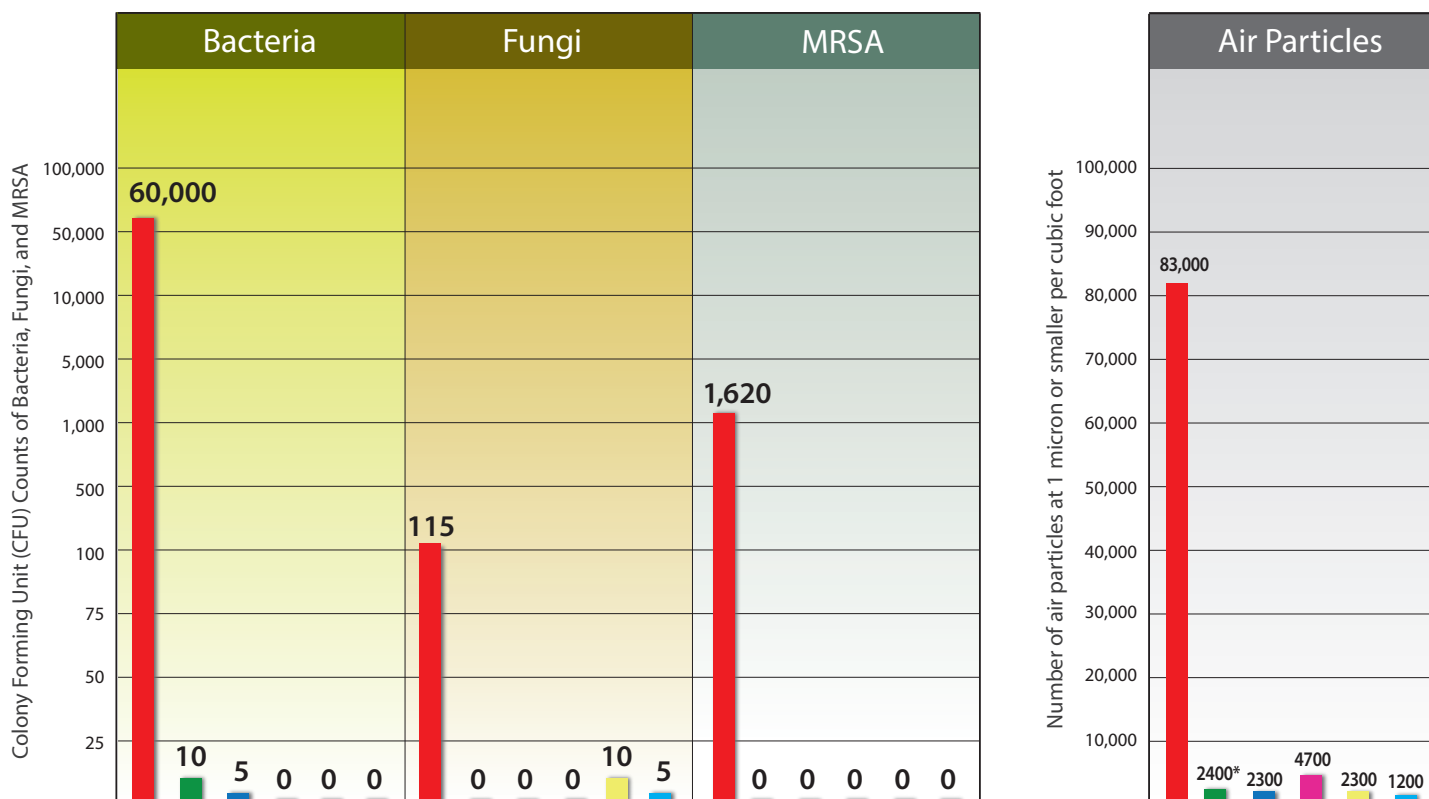
#### Fungi Colony Forming Unit (CFU) Count

Combined Results From Three Rooms



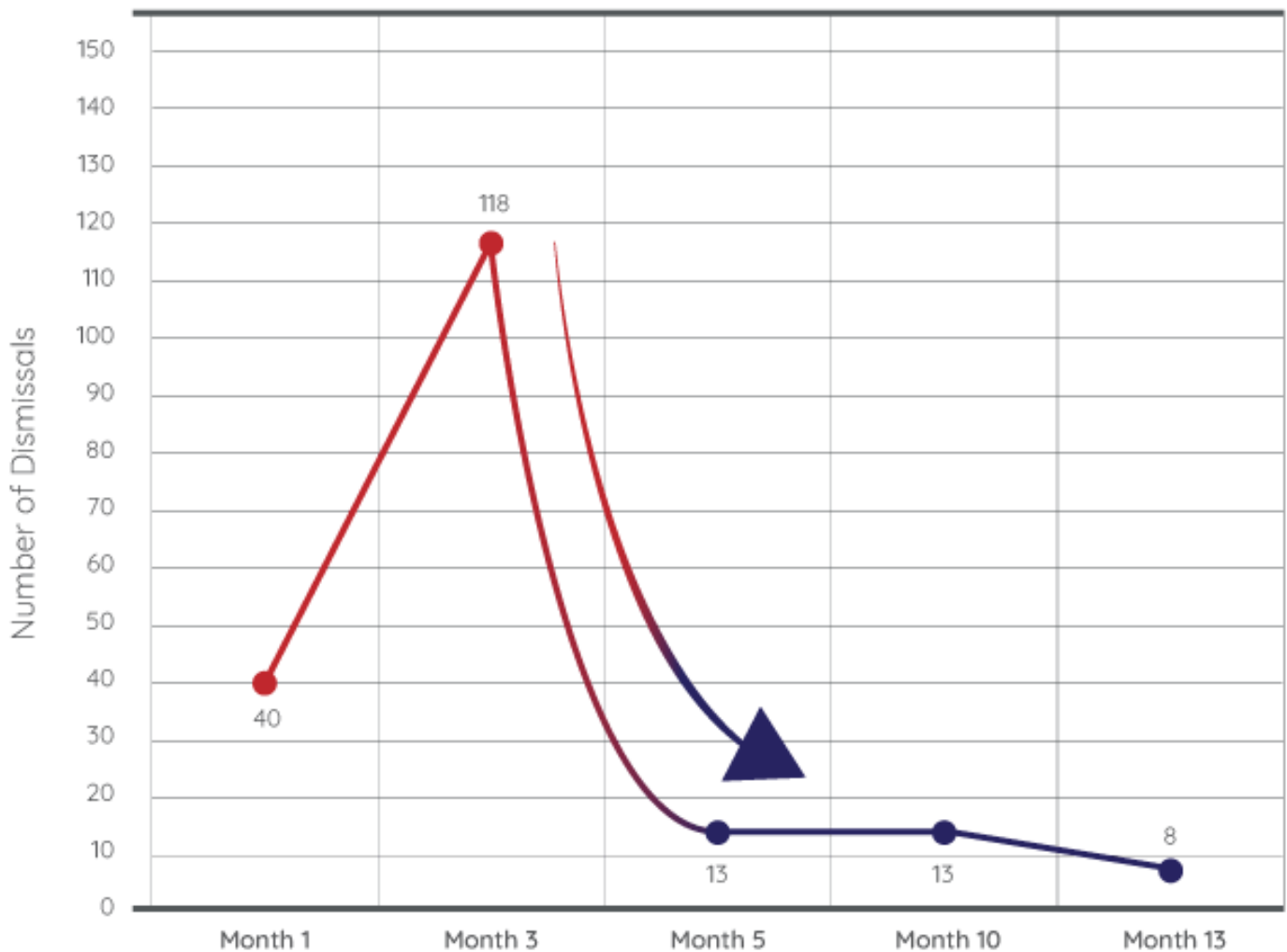
## 100% ELIMINATION ESSENTIALLY

MAJOR LEAGUE BASEBALL - BEFORE & AFTER RESULTS  
USING AFTIVEPURE<sup>®</sup> TECHNOLOGY



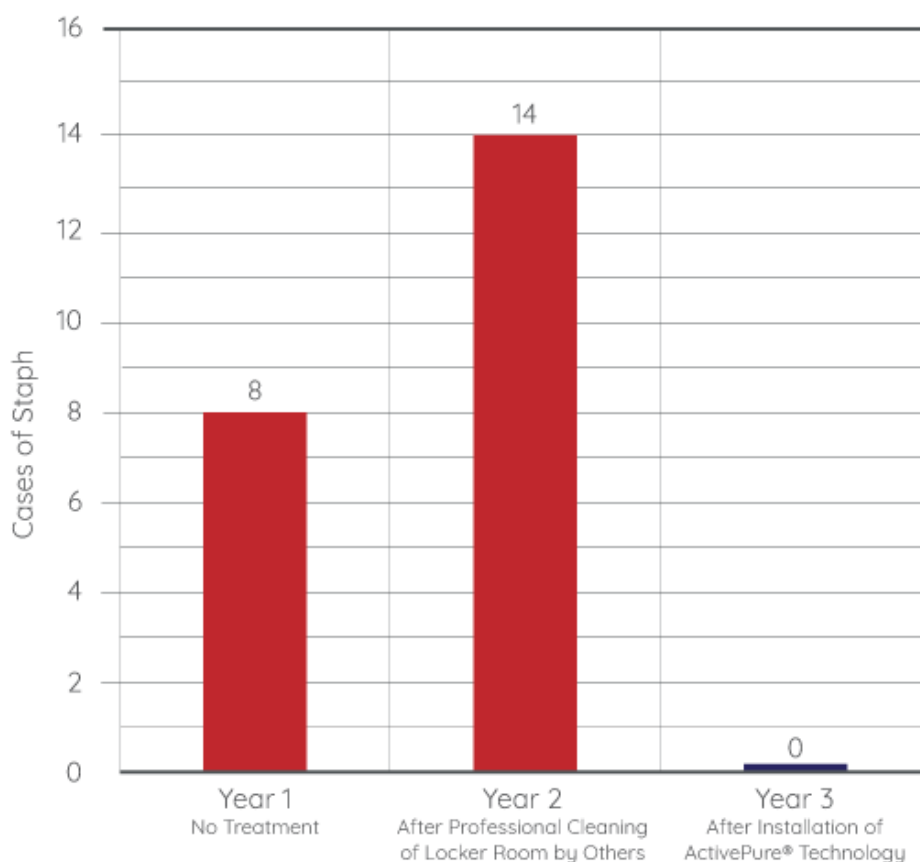
## 80% REDUCTION IN NUMBER OF FLU RELATED DISMISSALS

- **4 MONTH:** Installed half of air purification units with ActivePure® Technology
- **10 MONTH:** Installed balance of air purification units with ActivePure® Technology

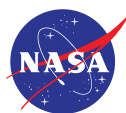


## 100% REDUCTION IN CASES OF STAPH

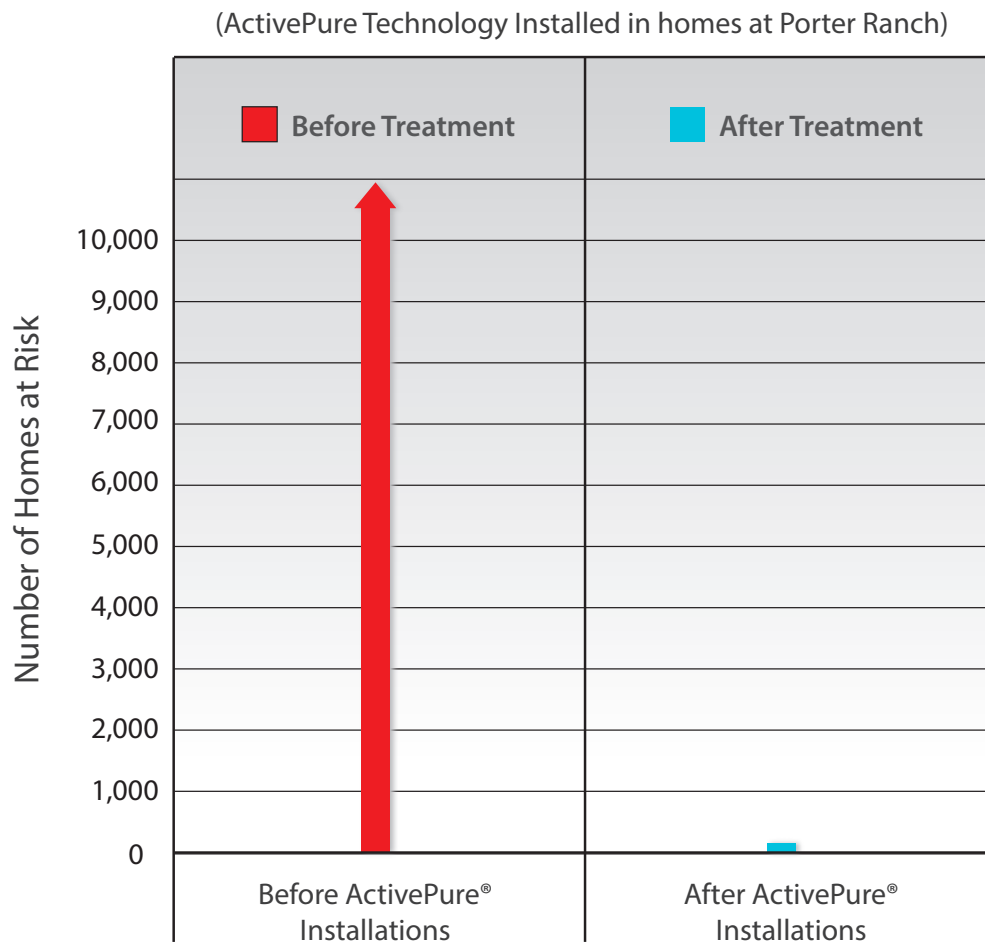
### ACTIVEPURE® TECHNOLOGY INSTALLED IN OHIO SCHOOL SPORT FACILITIES



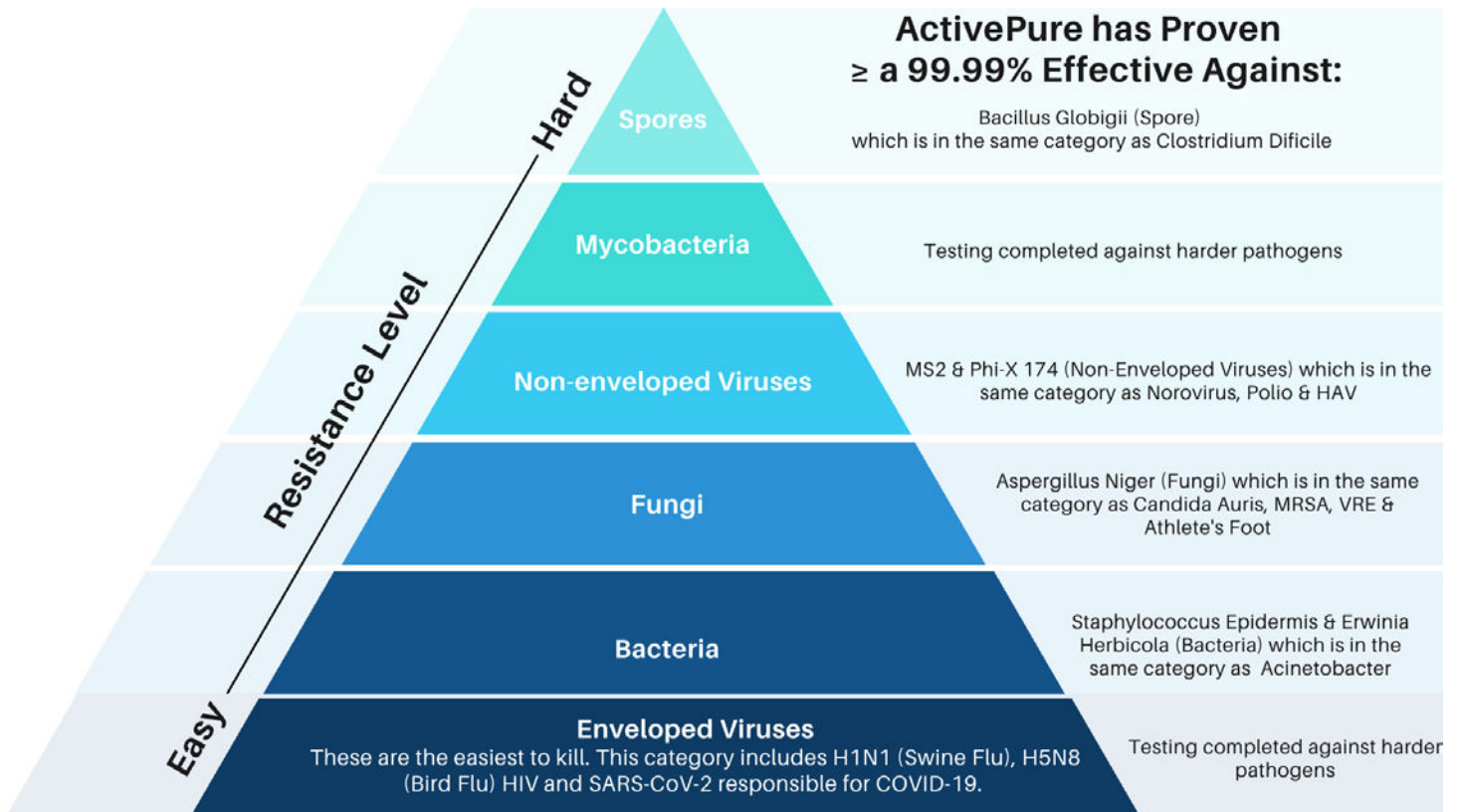
\*The study's results are being provided solely for informational purposes. The study's results have not been reviewed by the FDA, EPA or any other governmental agency. Our products are not medical devices and are not intended to diagnose, treat, or cure any disease. We make no claims and no claims should be inferred as to the efficacy of our products to sanitize, disinfect or kill germs or other antimicrobials.



## 100% REDUCTION IN VOCs (METHONE GAS ADDITIVE) BEFORE AND AFTER RESULTS WITH ACTIVEPURE<sup>®</sup> TECHNOLOGY INSTALLATIONS



### PROVEN $\geq$ 99.99% EFFECTIVE



ACTIVEPURE® ALSO PROVEN TO DESTROY **OVER 99.9% OF:**

- Avian Flu
- Candida Albicans
- E. Coli
- Hepatitis A
- Legionella Pneumophila
- Listeria Monocytogenes
- MRSA
- Murine Norovirus
- Pseudomonas spp.
- SARS-Cov-2 Coronavirus
- Smoke
- Stachybotrys Chartarum
- Staphylococcus Aureus
- Streptococcus spp.
- Swine Flu

Field results may vary based on environmental conditions. These results have not been certified by the FDA.

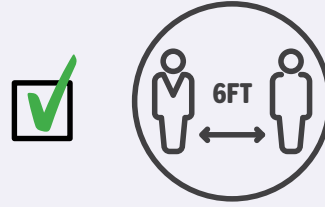


# What measures are we taking today to help combat the spread of virus and pathogens in the workplace?

Working from Home



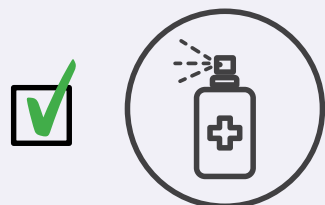
Social Distancing



Sanitizer



Disinfectant Sprays



Masks



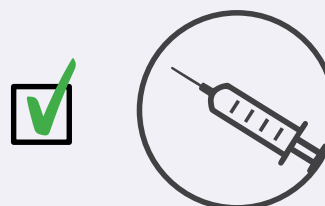
Passive Air Systems



Gloves



Vaccines



While this is helpful, is it enough?

**The Missing Link? ActivePure®!**