

## **ActivePure is safe, proven, effective, and certified.**

ActivePure is an active purification technology that puts back into the air the same therapeutic molecules that make our outdoor air safe – molecules that actively neutralize pathogens and volatile organic compounds (VOCs) as they enter the space. ActivePure provides a layer of protection that reduces airborne and surface pathogens quickly and effectively. ActivePure has been extensively tested for both its safety and efficacy against airborne and surface contaminants in occupied spaces. We are continually studying how to optimize our technology as an effective layer of protection to reduce community-acquired infections.

ActivePure is not a passive technology; it is not air filtration. Filtration is passive technology that depends upon air circulation and filter efficiency to trap pathogens; its effectiveness is highly dependent upon particle size and air changes per hour. In most built environments, air changes per hour are simply inadequate at remediating interior spread at close contact. Clean air delivery rate (CADR) is a metric that is applied to passive trapping devices. However, CADR does not measure pathogens – just smoke, dust, and pollen – and it inadequately reflects the exponential benefits of utilizing an active technology that neutralizes pathogens.

ActivePure is scientifically proven, validated by the FDA, and safe for people, pets, and our environment. ActivePure has been tested in independent third-party BSL-3 and BSL-4 labs following FDA protocol and proven to materially reduce SARS-CoV-2, the virus that causes COVID-19, in the air within 3 minutes. In addition to our multiple independent third-party studies at university and FDA-compliant commercial laboratories, the ActivePure Medical Guardian, which uses the same ActivePure Technology found in all ActivePure products, was cleared by the FDA as a Class II Medical Device in 2020. The multi-year process essential for FDA clearance tested ActivePure to ensure that it was safe and effective. ActivePure Technology is effective against six clinically relevant pathogens and creates no harmful byproducts or ozone.

ActivePure has over a dozen devices that are CARB-certified, which means they are safe and meet California's strict ozone emissions concentration limit of 50ppb. ActivePure has over 15 devices that have been tested to UL safety standards, confirming the quality, safety, and performance of the devices, and ensuring the products meet regulatory requirements for safe and trustworthy products.

The ActivePure Medical Guardian is currently the subject of a two-year double blind clinical trial at the Cleveland Clinic to measure the impact of ActivePure Technology on reducing surgical site infections. ActivePure has demonstrated material real-time reductions in pathogens in various studies, including in Health Canada ICU units and Texas hospital operating rooms where our technology was utilized in conjunction with installed ventilation and filtration systems.

ActivePure has been safely deployed in a number of schools across the country. We have data from a day school in Dallas, TX showing material reduction in airborne and surface contaminants, and a 70% improvement in overall air quality. This school was able to safely return to full-time in-person learning in 2020 with ActivePure as an effective, complementary solution in addition to ventilation, distancing, and mask-wearing.

**To help individuals differentiate between active and passive technologies, ActivePure compared six known air purification technologies to ours:**

1. ActivePure is not an air filter such as HEPA or MERV 13. These filters trap some but not all airborne particles when air is first brought in from the outside or recirculated. They cannot effectively reduce the spread of pathogens that are continuously released in occupied rooms through aerosols or droplets. Because they are passive systems, they must wait for airborne pathogens to come to them before being partially filtered. Even then, pathogens are not neutralized, they are merely trapped in the filter.
2. ActivePure is not an ionizer. Ionizers use electricity to produce ions that impart an electrical charge to nearby particles. The majority of these ions cause particles to stick together and fall out of the air rather than eliminate the pathogens. The large number of charged particles produced by ionizers have been linked to harmful health outcomes.
3. ActivePure is not a ventilation solution. The HVAC industry is pushing for more fresh air and better filtration as a way to improve indoor air quality (IAQ), however, this is a slow and ineffective way to address IAQ concerns. They ignore the costs of such a policy, both financially and to the planet and future generations. Increasing ventilation and filtration in indoor spaces will require the very costly replacement of both older HVAC systems and modern highly engineered HVAC systems. Increasing air flow through denser filters will cause a huge increase in the carbon footprint of anyone using these new systems and filters, an effect compounded by increasing the amount of air needing to be conditioned, at a time when the world needs to focus on reducing carbon emissions.
4. ActivePure is not UVGI light. UV light is utilized in indoor spaces in two formats both of which are limited. The robot style UV light is extremely powerful but also labor intensive, only treats what is in direct line of sight, and can only be used in unoccupied rooms as it is harmful for your eyesight and skin. Other wall mounted UV lights that claim continuous disinfection must be shielded so that the reflection is the only thing visible. With the shielded approach, it becomes a passive technology that waits for pathogens to pass by it. Many times, they are not in line of sight long enough for the UV to deactivate them.

5. ActivePure is not PCO technology. Most PCO type air purifiers are based on early versions of the technology. They typically have reduced reaction rates and limited effectiveness, rendering them not much better than any other passive filtration technology. Early generation PCO type air cleaners can create ozone and dangerous VOCs, making them unsafe to use in indoor environments.
6. ActivePure is not a chemical surface disinfectant. Surface disinfectants are chemical agents that kill or eliminate microorganisms on surfaces. Due to infrequent or incorrect application, they do not necessarily kill all microorganisms, especially those that are highly resistant. They also tend to involve toxic chemicals and they do not protect against pathogens newly re-introduced after application.

For more information on ActivePure test results, safety, and efficacy visit [activepure.unitedgreen.eco](https://activepure.unitedgreen.eco)