Respicaire®

For the Health of Your Indoor Air



ACTIVE IONIC ACTION

LARGE CATALYTIC SURFACE

COLOR SCREEN

ADVANCED PLASMA OXIDIZERS

OXY 4 Air Purifier™

Advanced Ionic Photo-Oxidation

Featured in NASA Spinoff 2022

Why Air Purification?

Clean air is an essential element for vibrant Health….yet…it is also one of the most heavily polluted. Did you know that indoor breathing environments are typically more contaminated than outdoor air? (EPA)* The recent pandemic has shown us how airborne pathogens and virus can travel in confined indoor air spaces. Increased energy costs have made homes, offices & buildings airtight. These confined living spaces can trap & concentrate airborne particulates like virus, molds, bacteria microbials, gases, & VOC's…..including some that are highly toxic. Consider the fact that we now spend 90% of our life indoors, living, breathing, & growing in artificial environments. The question is...are they healthy? (*as per EPA studies)



Did you know that many harmful microbials & pathogens travel & infiltrate through air & common contact surfaces? Washing hands, though recommended, is often insufficient. Trapped indoor virus & airborne contaminants can contribute to respiratory illness, allergy, asthma, sinusitis, congestion & compromised immune systems.

OXY 4 - Helps to inactivate many airborne Micoorganisms including Corona virus



What about Odors and VOC's indoors?

In addition to microorganisms, modern living spaces can trap & concentrate gases, chemicals, odors & VOC's (volatile organic compounds). These are released via modern synthetics, paints, cleaning chemicals, furniture, carpet and adhesives creating the potential for a harmful or toxic mix.

UP TO 90% REDUCTION OF MANY ODORS, VOC'S AND GASES



ACTIVE IONIC CLEANSING - WORKS 24-7/365 DAYS A YEAR!



At Respicaire, we specialise in the removal, cleansing, elimination & treatment of airborne & surface particulates, microbials, pathogens, VOCs, gases & odors. Our latest innovation is the OXY 4 Air Purifier, offering unequalled air cleaning value. It features our advanced ionic oxidation technology to help cleanse & revitalize your entire indoor living & breathing environment. Our technology treats the entire living space regardless of where contaminants may be.

ACTIVE IONIC OXIDATION



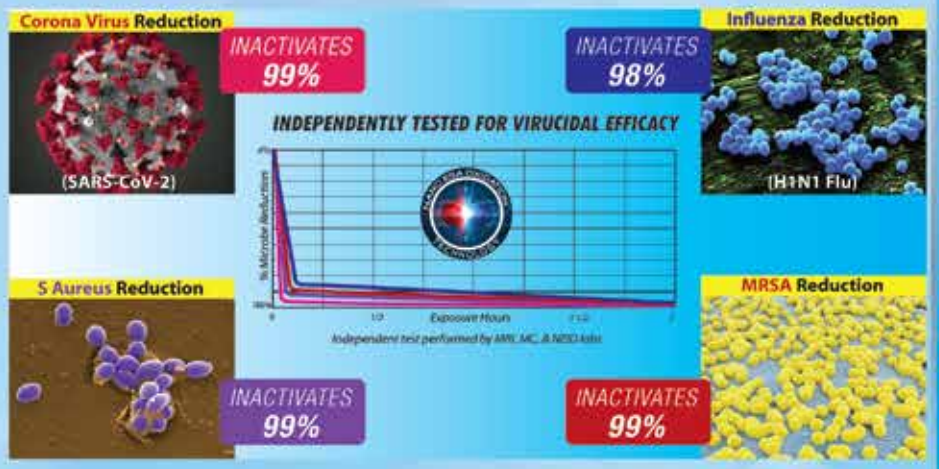
Respicaire OXY4 air cleansing technology

The Respicaire OXY 4 Air Purifier helps to clean indoor air by producing airborne ionic cleansers. These advanced air cleansers include hydroperoxides hydroxyls & super oxides that seek out airborne & surface contaminants to help detox your indoor air. Our OXY 4 system combines ESA* titanium dioxide with Ultra Violet light. This clever combination creates Ionic Catalytic Reactions producing oxidative Air Cleansers. These "hunter oxidation molecules" migrate throughout the indoor living space to help inactivate & cleanse indoor air. In fact, in independent laboratory tests, the OXY 4 has been shown to inactivate & neutralize 99% of the pandemic corona virus known as SARS-CoV-2 in seconds. While real world results can vary, it helps to know that we take pride in our product performance and invest constantly to confirm efficacy.

*ESA – EXTENDED SURFACE AREA – HIGHEST IN THE CATEGORY

Independently tested for Proven Performance & Solid Purchase Value

All Respicaire products are independently tested by 3rd party independent recognized labs. The OXY 4 test results are excellent with 99% inactivation rates on some of the most challenging airborne organisms.









Spinoff 2022



Two OXY 4-MB air purifiers from Respicaire are installed in the air handling unit at Synergy Flavors Inc. in Wauconda, Illinois. Credit: Jensen's Plumbing & Heating

Spacecraft: The Ultimate Indoor Environment

Respicaire's most popular products, are based on a technology developed in the 1990s at the Wisconsin Center for Space Automation and Robotics (WCSAR), a NASA Research Partnership Center. Researchers wanted to eliminate ethylene from the air around plants in spacecraft. Without gravity to move the air around, ethylene accumulated causing premature withering. The NASA derived solution is now known as photocatalytic oxidation, and it eliminated a lot more than ethylene. Photocatalytic oxidation starts when ultraviolet light hits titanium dioxide, a common, naturally occurring chemical compound installed inside the device. This releases electrons, which then combine with oxygen and water molecules in the surrounding air. The oxygen and water, now with a charge, attract organic contaminants, causing reactions that turn them into carbon dioxide and water. Among the pollutants destroyed are volatile organic compounds and other harmful or odor-causing chemicals, as well as mold spores, bacteria, and viruses. Marc Anderson, the professor who led the project at WCSAR, was one of two researchers leading efforts during the 1980s to purify air and water with titanium dioxide-induced photocatalytic oxidation. The other was Akira Fujishima at the University of Tokyo. While the technology has gained popularity in the last 20 years, Anderson said, "Fujishima and I were among the earlier scientists refining this photocatalytic process to make it a practical environmental technology for NASA space flights. Now (many companies) are building on work we all did nearly three decades ago."

At TFI Environmental, John Hurley (owner) said he was surprised when he discovered the technique while scouring air-purification research. "NASA, to me, was rocket engines and fancy technology and all kinds of expensive gear." Respicaire devices incorporate a combination of photocatalytic oxidation and other technology like activated-carbon filters that remove chemicals. The OXY 4 air purifier is based on NASA's photocatalytic oxidation process and is one of the most popular Respicaire air purifiers. Testing last year showed that these purifiers were effective in eliminating the SARS-CoV-2 virus. Respicaire's products, including the popular OXY 4 air purifiers, are all designed to fit into the ducts of heating and cooling systems, where multiple units can be stacked to purify the air in larger commercial spaces.

Credit: Nasa Spinoff 2022 Credit: TFI Environmental Company Two OXY 4-MB air purifiers from Respicaire are installed in the air handling unit at Synergy Flavors Inc. in Wauconda, Illinois. Credit: Jensen's Plumbing & Heating Air.

NASA Spinoff 2022

Maintenance

Respicaire OXY 4 Ultra Violet Air Purifiers feature our catalytic 9000 hour lamps.
We recommend **annual lamp replacement to ensure optimum performance and air cleansing.**

Installation Options







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www.respicaire.com

OXY4-CS-BE

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