



VIRUS SAFE
(Pty) Ltd.

UVGI PROTECTION

(Ultraviolet Germicidal Irradiation)

VIRUS SAFE BUILDINGS

A New Approach to Sustainability & Green Cleaning

THE IMPACT AND SUSTAINABILITY OF CHEMICALS

Several studies have shown that chemical disinfectants pose significant health risks to those using them and can even potentially contribute to microbial resistance. Furthermore, studies have also shown that common cleaning products, such as bleach, glass cleaner, and detergents can trigger asthma or other respiratory symptoms.

In addition to the danger cleaning products present to humans and the environment, the use of chemicals to disinfect surfaces and spaces is not sustainable. Studies have shown that traditional cleaning is often insufficient with reports of more than 50% of surfaces not being disinfected properly after terminal cleaning. Also, once a space is occupied the risk for contamination increases and risk for bacterial and viral infections rise, it will therefore require constant cleaning which can result in significant increase in costs.

Given the challenges with traditional chemicals and difficulty in finding effective, yet sustainable products to disinfect spaces, a new strategy is warranted.

BENEFITS OF UVGI DISINFECTION

While UVGI disinfection is not a “new” technology, UV light is a proven disinfectant for surfaces, instruments, and air. With over 140 years of research behind it, Ultraviolet light has been repeatedly proven effective against pathogens, including C. diff, MRSA, E. coli, Salmonella, Norovirus, and many more. The ability of UV light to kill microorganisms is directly related to the energy dosage produced by the UV source as a function of spectrum, time and distance to the target.

Ultraviolet light attacks microorganisms at the DNA and RNA level. Microbes are not able to develop resistance to ultraviolet light, compared to their ability to form resistance to certain types of chemical disinfectants.

Another potential benefit is the ability to reduce the labour and/or cost of chemical cleaning. A study using UV for routine daily disinfection of surfaces cut the number of housekeeping hours required in half, compared to using alcohol wipes in manual cleaning.

Furthermore, UVGI disinfection systems like those from VirusSafe are also energy- efficient.

CONCLUSION

Ultraviolet Germicidal Irradiation has an extensive history of effectively killing microbes in the air and on surfaces, which has been proven to reduce the infection rates of MRSA, C. diff, VRE and other harmful pathogens.

With its proven results and chemical-free method of disinfection, ultraviolet light provides a sustainable, effective way to keep our spaces safe from harmful germs, while still protecting our environment.