

The beauty of green chemistry is a sustainable chemistry. This is a philosophy of chemical research and engineering that encourages the design of products and processes that minimize the use and generation of hazardous substances.

Sustainable chemicals consumption, especially with biocidal chemicals, is one of the key elements in saving our environment. PreVasive' service technology helps to reduce residual chemicals by over 80% compared to average products in the market.

How can a biocide cleaner be environmentally friendly?

By being effective and safe to use. Biocides are essential for daily life, but many of them are harmful to people and the environment. PREVASIVE' technologies and products are designed to be a sustainable and environmentally-friendly biocide cleaning technology.

Principles of green chemistry

Usage of our PREVASIVE' products technology helps to reduce chemical consumption and harm to the environment and reduces the exposure of harmful chemicals in normally used cleaners and biocides.

Our products are designed to protect consumers and minimize irritation.

Our system is designed to be most effective using lowest level biocidal reagents designed in combination tasking multi-modal pathways of pathogen destruction.

PREVASIVE' Botanicals kills the germs that normal cleaning doesn't get rid of.

There are many choices of antimicrobials on the market but one type has risen to popularity in recent years: botanical products. While they offer many distinct advantages over traditional synthetic chemistries PreVasive products offer unprecedented safety profiles, they are also a sustainable and risk mitigating cleaning option for every restoration job. But be careful, many "botanical products either are synthetic or contain other hazardous chemistries. Look on labels for key words safer choice EPA, organic, certified green and GRAS FIFRA 25B for true green botanicals!

PREVASIVE' disinfection, restoration and cleaning products outperform the competition and are center stage front of these innovative products!

Asking if a product is green or not, is really not enough anymore. The question has shifted to ask if the product is a sustainable choice or not. The term sustainability comes from the process of looking at the total life cycle of a product. From beginning to end, what are the environmental and human health impacts of that product? Gone are the days when manufacturers could switch out a few toxic ingredients and then market them as "green." Restoration contractors have come to look for botanical ingredients in the products they use because the ingredients come from a natural plant and not a synthetic chemical manufacturing facility or botanicals with added toxic chemistry.

What is a Botanical Antimicrobial?

Botanical antimicrobials are described as that because they use actual plant (or botanical) ingredients from nature. There is formulating with natural ingredients to mimic and harness what nature has done for millions of years. There is always a balance in nature. For harmful bacteria and viruses, nature has given a powerful immune system to plants that withstands invading germs. Whole Thyme plants are one of the hardiest plants in the world, which makes their essential oil nature's best antimicrobial and natural whole plant thyme contains over 32 micro exudates not found in synthetic reproductions. PREVASIVE' provides disinfection and cleaning products with patented leading-edge essential oil technologies developed over the last 15 years is changing everything!

Trending Science

Unfortunately, using completely natural ingredients is an unusual concept for the chemical industry to understand. Chemists have tried to make cheaper synthetic copies of what nature has designed over centuries and expect the same results or adding other chemicals to natural ones to get the job done. Many are finding this synthetic chemistry and supporting natural chemistries with unsafe additives are just the opposite of their marketing!

Some chemicals market themselves as botanically-derived or nature-inspired, but that is just the new generation of green washing. They can't be botanical unless it's actually from a plant. Otherwise, it's a man-made copy. That's like saying orange flavored drink is the same as real orange juice. Simply adding natural essential oil to an existing synthetically - based product doesn't make it botanical.

In the restoration industry, even Xactimate recognizes the potential for green washing and specifically identifies that only plant-based antimicrobials can use the green product code WTR-GRMB. By using this code, restorers are compensated for using a botanical product over a synthetic one, which is more beneficial for everyone.

So how do you know what is authentically botanical? Take a close look at the ingredients and the safety data sheets.

A Revolution to the Chemical Industry

Antimicrobials were traditionally always assumed to be toxic to humans as well as the organisms they were intended to kill. Botanicals revolutionized the antimicrobial world by producing the very first disinfectant approved by the Environmental Protection Agency (EPA) that did not require any human health warnings on the label. However, some chemicals and metals were allowed and hidden in the ingredients. PreVasive has moved to the highest level of safe chemical botanicals by using only chemicals listed by FDA on the FIFRA 25- B (GRAS) Generally recognized as safe list for BAC, WASP, Bed bug Defense and including our asbestos wetting agent. Our Oxy Orange is certified green and our HD degreaser contains EPA safer Choice chemicals.

Unlike synthetic chemistries and those advertising botanical (actives) not listing the toxic chemistry additive in their products, PREVASIVE' botanicals use all ingredients which are (GRAS).

When botanical antimicrobials first hit the market they were lumped in with all the other "green" products and people easily dismissed them thinking they didn't work as well. When in fact, in order for a product to make a public health claim (like "kills germs" or antimicrobial), the product must be registered with the EPA or be a FIFRA 25B. The truth was, however, that botanicals went through all the same standardized testing and passed with flying colors. That is the EPA's way and FDA 's of telling the public that the product did, in fact, do what it says it's going to do.

Optimized Dynamic Chemistry for PREVASIVE' Botanical Cleaners

Botanical chemistry isn't just for antimicrobials, though. Botanical cleaners have also come a long way. The best cleaners are formulated to attack dirt in a much more efficient way than traditional chemicals.

Where most cleaners use one method of dealing with dirt, bio-surfactants are formulated with a process called Optimized Dynamic Chemistry (ODC) to create multiple reactions at the same time. The result is a systematic approach to dissolve, disperse, and clean dirt.

This formulation difference produces high performance cleaners that are more effective, safer to use and much more sustainable for the environment than typical synthetic cleaners. Sound way too technical for you? Think of it like an elite tactical strike team as opposed to global bombing. Traditional synthetic chemistry is the bomb that obliterates everything, whereas the tactical team is made up of nature's eons of evolved specialized ops force to do their specialized job and seek out and destroy only the target.

Optimized dynamic chemistry is a revolutionary, much safer approach to cleaning chemistry utilizing the knowledge of eons of development by plant botanicals!

PREVASIVE' products offer Less Liability

With traditional synthetic chemicals that have potential or serious health warnings listed on their label, there is a risk for the restorer applying them into someone's home or commercial building. By using botanical technologies, with the absolute lowest health warnings, (GRAS FIFRA-25B) Generally recognized as safe Utilizing all Organic Botanical ingredients, we take out the health and safety concerns and the restorer avoids that liability from something going wrong. This is a win-win for all!

In and of themselves, the botanical products have contributed greatly to the way we clean today. However, the true measure is when the products we use do not add anything or take anything away from the environment positively affect our health and the health of others.

