

Cleaning and Disinfection

Your First Line of Defense against Emerging Pathogens

➔ **The threat of emerging pathogens** such as African Swine Fever is one of the most critical issues currently dominating the global swine industry. With this has come a heightened awareness around the importance of biosecurity in preventing the entry and spread of this virus. While this awareness has brought about many positive changes, it's critical for producers and veterinarians alike to understand the factors that will allow their cleaning and disinfection protocol to offer them the best protection possible.

This need is certainly not new to Virox Technologies®, which encountered many of the same issues in human healthcare over 20 years ago. Virox realized that the disinfectants that were ubiquitous in hospitals were also harmful to patients and staff, due to their harsh chemical formulations. In response to this, Virox developed its patented Accelerated Hydrogen Peroxide® (AHP®) technology, which combines low levels of hydrogen peroxide with other commonly-used ingredients to deliver a safe, fast and highly effective disinfectant. Since these early days, this combination of safety and efficacy has propelled AHP® to become a leading disinfectant in the human healthcare space.

A similar trend is under way in the field of animal health. Increased risk from highly pathogenic agents persistent in the environment is very present; however, considerations related to the safety of the chemical solutions to people and animals, ease of use and application and impact to the environment are becoming more important. With pathogens such as PEDv, PRRSv and more recently, African Swine Fever virus (ASFv) continually emerging over the years, it became clear that a highly effective, yet safer disinfectant would be needed.

With Intervention® One-Step Disinfectant-Cleaner, formulated specifically for farm animal use, Virox has brought the state of the art in cleaning and disinfection to the fight against emerging pathogens. Intervention® helps producers respond to emerging disease threats by addressing three main problems with traditional disinfectant chemistries. The first issue is cleaning capabilities: although cleaning is at least as important as disinfection in the fight against pathogens, traditional disinfectant chemistries are often poor cleaners. For instance, positively charged quaternary ammonium compounds can bind to negatively charged soil particles, making the active ingredient

unavailable to kill pathogens. Intervention® contains anionic (negatively charged) and non-ionic surfactants, which suspend soil particles in the wash solution and prevent their redeposition onto surfaces. The second issue is safety: commonly-used chemistries such as glutaraldehyde and phenolics are highly toxic and often corrosive, and have been associated with numerous occupational health concerns over



the years - this risk is further exacerbated when the products are applied at high pressure, such as through a power washing machine.

The small droplets in these aerosols increase the occupational safety risk of exposure to both people and animals. Intervention® is non-toxic and non-irritating to eyes and skin at in-use concentrations, carrying the lowest possible EPA toxicity rating. Finally, traditional disinfectant chemistries often persist in the environment, threatening the health of ecosystems and contributing to the development of resistance by organisms due to adaption to a continuous, low-level exposure to the chemical agent. The active ingredient in Intervention® readily breaks down into water and oxygen, leaving no harmful chemical footprint behind in the environment.

With the ongoing threat of African swine fever and other emerging pathogens, it's crucial to ensure that cleaning and disinfection is serving its role as our first line of defense. With Intervention®, Virox hopes to help producers across the country feel confident that their biosecurity protocol is providing their herds, staff and the environment with the best possible protection.