



Engineering Revolutionary Disinfectants  
for the War Against Microbes



# The Virox Mission

Since the beginning of time, human's deadliest foe has been the microbe.

Today, we are still at risk of contracting disease from healthcare facilities to restaurants to the plants that process our food, to the contaminated surfaces in schools where our children learn.

Chemical disinfectants are the first line of defence as we focus on prevention, conceding that cures are costly and at times not the answer. While science has made enormous strides over the last century in our war against germs, now we face a new problem.

The very chemicals we have been using to fight microbes are causing environmental damage and threats to our health and safety.

Only now has it been possible to create systems that combine unmatched efficacy with environmental integrity and safety in application.

The mission of Virox Technologies is to equip the entire spectrum of global markets that are concerned with infection prevention with state-of-the-art antimicrobial technology in the war against germs. Our company is dedicated to the development, optimization, and adaptation of a fundamentally new approach to this challenge...an approach which has been validated and endorsed by the scientific community and which has been adopted by the market leaders in a broad range of industries.



We believe that there is no longer the need to compromise on efficacy of application, or to trade it off for either personal safety or environmental integrity. By harnessing the cleaning and disinfecting powers of hydrogen peroxide for the first time, Virox Technologies has developed a new standard of performance. The tools are here, and the time is now.

As a research-driven company, Virox currently sells branded and private label products, and partners with the market leaders in an array of industries, who have all validated the scientific claims and market acceptance of our patented technologies.



In every case, the Virox logos representing the active ingredient, Accelerated Hydrogen Peroxide® will be prominently displayed in order to build brand equity and customer confidence that is synonymous with the new standard in cleaning and disinfection.

Virox is continuing to expand its business through the application of our technologies to new global markets, new applications, new industries, and new, proprietary product concepts.

## Accelerated Hydrogen Peroxide®

The world's **FIRST & ONLY** disinfectant technology formulated for:

Surfaces



Devices



Hands



## Our History

### 1998

A group of visionary entrepreneurs acquired the rights to a technology that was 10 years in development. Virox developed a sound yet aggressive strategic plan and sought the resources to build on this technology now known as Accelerated Hydrogen Peroxide® (AHP®).

### Today

Virox has many industry leading partner companies who have acquired global rights for specific disinfection market segments including dental, veterinary, industrial, institutional, healthcare, education, animal health, aquaculture, hand care, consumer products and medical device sterilization. AHP® is available in more than 60 countries around the world.

With many issued global patents and several more pending, Virox has become a valuable partner to our licenced companies.

Virox has received many awards in recognition of our economic and environmental sustainability. Some highlights include:

- Safer Choice Partner of the Year Award for Innovation by the Safer Choice Design for the Environment.
- Champion Status for the Safer Detergents Stewardship Award (SDSI) awarded by the EPA's Design for the Environment (DfE).
- Canadian/American Business Council Award – Virox and Diversey were awarded the prestigious Business Achievement Award for their collaboration in developing and distributing a safe and environmentally friendly hydrogen peroxide-based disinfectant.



## Confidence

Proven effective against the leading pathogens of concern.



## Fast Acting

Short contact times ensure user compliance with label claims.



## Responsible

A proven next generation disinfectant chemistry.



## Balance

Easy on users, materials and devices but tough on pathogens.



## Sustainable

Eco-friendly—Hydrogen Peroxide breaks down into oxygen and water.

# The Multipatented Antimicrobial Technology



It has long been known that hydrogen peroxide can kill germs without being harmful to the user. However, up to now, this remarkable chemical has not been considered stable enough to be practical as the foundation for a system of commercial disinfectant cleaners. Virox scientists have now developed a way to put this chemical to work. Accelerated Hydrogen Peroxide® (AHP®) is a stable disinfecting solution with enhanced germicidal activity that is not harmful to those who use it or to the environment.

## AHP® Accelerated Hydrogen Peroxide®

Virox Technologies Inc. has pioneered the broader acceptance of Hydrogen Peroxide based products with this patented technology known as Accelerated Hydrogen Peroxide® (AHP®). AHP® is a synergistic blend of commonly used, safe ingredients that when combined with low levels of hydrogen peroxide produce exceptional potency as a germicide and performance as a cleaner. These claims are all backed with governmental registrations and extensive third party analysis.

## An Approved & Validated Technology

- The benefits and efficacy of AHP® have been validated by third party clinical studies conducted by scientific organizations and third party researchers that are recognized by government regulatory agencies in Canada, the U.S., Europe, and Asia.
- AHP® has received approvals from Health Canada (TPD), US EPA (Environmental Protection Agency), US FDA (Food and Drug Administration), EU (European Union), New Zealand and South America.
- AHP® has been the subject of more than thirty favourably written peer reviewed scientific studies in journals such as the American Journal of Infection Control (AJIC), Journal of AOAC International and Infection Control and Hospital Epidemiology.
- The global partners of Virox are leaders in their respective sectors. Their due diligence in selecting AHP® as their infection prevention platform is a testimony to the strength of our Intellectual Property and sustainability of the technology.

# The Superiority

of **ACCELERATED**  
HYDROGEN PEROXIDE  
Patented

**AHP**  
Patented

## 2000's

The next generation technology utilizing Accelerated Hydrogen Peroxide® (AHP®) is introduced.

## 1990's

New strains of antibiotic-resistant pathogens continue to appear as new medicines are developed. Special handling requirements for Glutaraldehyde implemented.

## 1980's

Antibiotic resistant *Staphylococcus aureus* appears. Health risks working with phenolics are identified and restrictions for use implemented.

## 1970's

Quaternary ammonium compounds are introduced. Chlorine recognized as highly irritating and potentially carcinogenic.

## 1960's

Antibiotic resistant microbes start to appear. Hexachlorophene is popular until risks to the liver are discovered.

## 1950's

Alcohols continue to be used for disinfecting. Phenolic disinfectants change little over the next 50 years.

The development of AHP® represented the first real breakthrough in chemical germicides and cleaners in over 20 years. These AHP® formulations are not mere substitutes for current technologies. They are a truly new technology with demonstrable superiority in a number of key features.

## AHP® products are superior in 7 essential areas:

### Efficacy

#### Broad Spectrum Efficacy –

Products are formulated to kill spores, mycobacterium, fungus, non enveloped viruses (Norwalk), enveloped viruses (HIV), vegetative and non vegetative bacteria.

### Speed

**Contact Time** – AHP® can disinfect in 1 minute (ten times faster) than what many Quat-based products take 10 minutes to accomplish.

### Cleaning

**Efficacy** – AHP® has proven cleaning efficacy in excess of 90% per CAN/CSGB-2.16 and 2.11 compared to 15% for Quats.

**Residue** – AHP® does not leave any active ingredient residual on surfaces.

### Compatibility

AHP® has excellent compatibility with most surfaces thus protecting your assets.

### Safety

**Toxicity** – AHP® is non-toxic

**Irritation** – AHP® is non-irritating to skin and eyes

**Corrosivity** – AHP® is non-corrosive at in use dilutions.

### Environmental Impact

Hydrogen Peroxide is 100% biodegradable in minutes when discharged into a drainage system. AHP® only contains ingredients that are considered environmentally preferable and sustainable. Further AHP® is certified by leading safety boards as "Green" including Green Seal, GreenGuard, EcoLogo and Design for the Environment (DfE).

### Cost Effectiveness

AHP® delivers exceptional performance, saving labour and protecting the customer from the direct and indirect costs associated with sub-standard cleaning and disinfection.



Market Leaders  
Depend on Virox®



## A Universe of Market Applications

Virox has worked with a number of leading global corporations to assess the potential of Accelerated Hydrogen Peroxide®. Exhaustive testing has validated the superiority of AHP® products in cleaning and disinfection and the ability to deliver these benefits in a cost effective and safe manner without any environmental negatives.

According to industry experts, this unique technology will dramatically redefine the standards of performance across a wide range of applications requiring disinfection.

### HEALTHCARE

Hard surface disinfection, medical instrument pre-soak and disinfection, equipment disinfection and cold soak chemosterilants

### ANIMAL HEALTH

Sanitizers, teat dips, hoof treatments, boot dips, premise disinfectants, bathing and grooming systems and medical instrument disinfection

### DENTAL

Surface disinfection, instrument disinfection

### JANITORIAL

Enhanced cleaning formulas, carpet sanitizing, surface disinfection

### FOODSERVICE

No rinse sanitizing of food prep areas and third sink applications, fruit & vegetable pre-rinse, shelf life enhancers

### INDUSTRIAL

Safer degreasers, biocides to control contamination, evacuation line cleaners, cold soak chemosterilants

### FOOD & BEVERAGE PROCESSING

No rinse sanitizers for CIP & COP applications

### PERSONAL CARE

Formulated hand sanitizers

### CONSUMER

Surface disinfection, kitchen and bathroom disinfection/cleaning, air sanitation, mold & mildew remover

### PROFESSIONAL BEAUTY

Workstations, foot spas and implement cleaners and disinfectants

### AQUACULTURE

Environmental surfaces (walls and countertops), equipment (hatchery tanks, graders, vaccination equipment, vehicles, nets) and footbaths

## LEED® Silver Certified

Virox Technologies Inc has achieved LEED® Silver certification from the U.S. Green Building Council (USGBC) for our 62,000 square foot headquarters which includes the company's corporate offices, research & development laboratory, manufacturing and warehousing facility. Virox is the first chemical manufacturer in Canada capable of not just developing EcoLogo and Green Seal Certified products, but manufacturing them in a LEED certified facility.



# Organizational Strength and Commitment

## Full Service Quality Manufacturing

Virox is a full service manufacturer focused exclusively on Hydrogen Peroxide-based products. The Virox plant has a dedicated quality control laboratory and personnel to enforce rigid quality control standards. Quality begins with scrupulous vendor selection, testing of incoming raw materials, ongoing employee training programs, constantly improving plant procedures and testing of finished products.



Virox Technologies Inc is a Health Canada licensed establishment which operates as per GMP (Good Manufacturing Practices) Guidelines from HPFBI (Health Products & Food Branch Inspectorate). Virox operates under accredited GMP procedures (Good Manufacturing Practices) and holds establishment licences from Health Canada and the US EPA as well as the US FDA.

## Business Development

In addition to our technical expertise, Virox Technologies has developed the research, sales, marketing, professional & technical services and management capabilities to adapt and commercialize its technologies in conjunction with market leaders to develop commercial opportunities throughout the \$20+ Billion Global Market for Cleaning and Disinfection products. Our core priorities are to:

- Provide a superior, responsive, product development capability.
- Expand the application of existing products and technology into new end-user markets.
- Continually innovate solutions that anticipate customer needs and adhere to regulatory guidelines.
- Maintain a business platform that is built on credibility, third-party validation, the endorsement of the professional and academic communities, peer-review documentation and fact-based claim marketing.
- Key influencer marketing to gain awareness with opinion leaders and trials leading to endorsement and acceptance. Currently AHP® is the focus of no fewer than 30 favorable peer-reviewed studies authored by prominent infection control experts and published in leading journals in several industries.

# Professional & Technical Services

## Virox Technologies In the Public Eye

Virox Technologies has always endeavoured to spread our indepth technical knowledge sharing it with the ones who need it the most — those charged with infection control accountability.

Our commitment to providing education through scholarships, webinars and support of research studies to further the science behind cleaning disinfection are just a few example of how we achieve this goal.

## Contact Us

To learn more about Accelerated Hydrogen Peroxide® (AHP®) such as peer-reviewed articles, efficacy reports, protocols, technical documents and endorsements or to find a product to suit your needs please visit [www.virox.com](http://www.virox.com), email us at: [info@virox.com](mailto:info@virox.com), or call **1-800-387-7578**.



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*There are over 8000 chemical disinfectant products on the market in North America and that number is quickly increasing, making it more difficult to select the right product, match it with the right protocol and conduct the right training to prevent the spread of infectious disease.*

**Who is PTS?** Infection Prevention, Public Health and Environmental Services' resource for all things related to the use and efficacy of various disinfectant chemistries.

**Our Mission:** Provide facts to clear away the *haze of smoke and mirrors* marketing surrounding chemical disinfectants.

**What We Do:** Provide education, support, facility audits, and information pertaining to cleaning and disinfection of environmental surfaces, medical devices and hands. From cruise ships to schools or healthcare facilities to community nursing and first response services, the PTS Teams' expertise and knowledge of chemical disinfectants is unparalleled in the industry. To view a complete listing of our services, visit our website [www.infectionpreventionresource.com](http://www.infectionpreventionresource.com)

## Talk **CLEAN** to Me Blog

The Talk Clean To Me blog dispels the myths of chemical disinfectants and provides our readers the latest resources related to cleaning and disinfection of environmental surfaces, medical devices and hands. Our commitment to providing chemical disinfectant education is more than business, it is a passion!