ENGINEERING REVOLUTIONARY DISINFECTANTS for the War Against Microbes
Since the beginning of time, humankind’s most lethal enemy has been the Pathogen. Today, we are still at risk of contracting infectious diseases in healthcare facilities, dental clinics, spas, cruise ships and other public spaces. Even animals in farms, veterinary clinics, and shelters are not immune.

...and yet the very chemicals being used to fight pathogens are threatening our health & safety and damaging our environment.
Only Accelerated Hydrogen Peroxide® combines unmatched efficacy with environmental integrity and application safety.
Engineering Revolutionary Disinfectants for the War Against Microbes
Waging A War On Pathogens

The mission of Virox Technologies Inc. is to equip the entire spectrum of global markets 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 that has been validated and endorsed by the scientific community and adopted by market leaders in a broad range of industries.

We believe that there is no longer the need to compromise on efficacy of application, or trade off on either personal safety or environmental integrity by harnessing the disinfecting powers of hydrogen peroxide. Our disinfectant technology is a synergistic blend of commonly used safe ingredients that appear on the EPA inerts list and the FDA’s generally regarded as safe list.

For the first time, Virox has developed a new standard of performance. The science is here, and the time is NOW.

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

Virox is committed to innovating, developing and improving peroxide based, environmentally sustainable cleaners and disinfectants that allow our customers to reduce their environmental impact.

“A focus on human and environmental sustainability is a legacy we will pass on to future generations.”

Randy Pilon, President & CEO
One disinfectant technology platform that combines unmatched efficacy with application safety? Now that’s a Deliberately Different® way of thinking.
Our History

1998

The discovery of a unique and innovative chemical synergy lead to the development of what would become known as Accelerated Hydrogen Peroxide® or AHP®. It represented a major break-through in disinfectant technology that was not only different but “deliberately different” — and would soon prove to be a game-changer.

Today

Virox Technologies Inc. has become an industry leader in infection prevention and control for a diverse number of market segments including: farm animal & companion animal health, professional beauty, laboratory, healthcare, dental, industrial & institutional markets, hand care, consumer products, mold remediation, and medical device disinfection and sterilization. AHP is available in over 70 countries with over 9 patents and many more pending.

With continual research & development resulting in 10 issued patents and several more pending, Virox has become a valuable partner to our licenced companies.

Virox has received many business and industry awards. Some highlights include:

- EPA 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 its strategic partner Diversey were awarded the prestigious Business Achievement Award for their collaboration in developing and distributing a safe and environmentally friendly hydrogen peroxide-based disinfectant
- In 2013, Virox Technologies achieved LEED® Silver certification from the U.S. Green Building Council (USGBC), becoming the first chemical manufacturer capable of not just developing EcoLogo/UL and Green Seal Certified products, but manufacturing them in a LEED-certified facility

See page 16 for a comprehensive list of awards.
When you use AHP products, you are keeping harsh toxic chemicals from entering our environment. Accelerated Hydrogen Peroxide breaks down into water and oxygen resulting in no environmental impact. Now that’s Green.
It has long been known that hydrogen peroxide can kill pathogens without being harmful to the user. However, this remarkable chemical was not considered stable enough to be practical as the foundation for a system of commercial disinfectant cleaners. Virox scientists changed all that by developing Accelerated Hydrogen Peroxide®/AHP® — a stable disinfecting solution with enhanced germicidal activity that is safe for users and the planet.

Accelerated Hydrogen Peroxide/AHP

Virox Technologies Inc. has pioneered the broader acceptance of hydrogen peroxide based products with its patented technology known as Accelerated Hydrogen Peroxide. 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 by governmental registrations and extensive third party analysis and testing. Powerful disinfectants are easy to formulate, however they are often toxic. AHP is unique as it achieves the ideal balance of safety and efficacy.

An Approved & Validated Technology

- The benefits and efficacy of AHP have been validated by peer reviewed clinical studies conducted by recognized scientific organizations, third party researchers and labs in Canada, the U.S., Europe, and Asia.
- AHP has received approvals from Health Canada, US EPA (Environmental Protection Agency), US FDA (Food and Drug Administration), EU (European Union), New Zealand, Australia and 40 other countries.
• AHP® has been the subject of more than 45 favourably written peer reviewed scientific studies.
• After rigorous due diligence, Virox’s Global Strategic Alliance Partners, who serve many industries, selected AHP® as their infection prevention platform, which is a testimony to the strength of the intellectual property and sustainability of the technology.

Driven by Research, Validated by Science

SURFACES

Boyce, J. et al. (2017) Prospective cluster controlled crossover trial to compare the impact of an improved hydrogen peroxide disinfectant and a quaternary ammonium-based disinfectant on surface contamination and healthcare outcomes. American Journal of Infection Control. 2017;45:1006-10


DEVICES


Omidbakhsh et al. (2006) A new peroxide-based flexible endoscope-compatible high-level disinfectant, AJIC Vol 34 No 9, pg 571-577

HANDS/TOPICAL


The Evolution of Modern Disinfection

1920’s
Chlorine Bleach products made commercially available, however are unstable and are poor cleaners.

1950’s
Alcohols continue to be used for disinfecting. Phenolic disinfectants change little over the next 50 years.

1960’s
Antibiotic resistant microbes start to appear. Aldehydes for medical device disinfection is introduced. Triclosan is introduced in hand washing products.

1970’s
Quaternary ammonium compounds introduced, however, became known to have environmental and broad spectrum disinfection challenges.

1980’s
Antibiotic resistant Staphylococcus aureus appears. Health risks working with phenolics are identified and restrictions for use implemented.

1990’s
New strains of antibiotic-resistant pathogens continue to appear. Special handling requirements for Glutaraldehyde implemented.

2000’s
The next generation technology utilizing Accelerated Hydrogen Peroxide®/AHP® is introduced. FDA bans Triclosan.
The Superiority of AHP®

AHP formulations are not mere substitutes for current chemistries, they represent the next generation in disinfectant technology with demonstrable superiority.

AHP Products are Distinguished by these Key Essential Traits

Balance

Efficacy & Safety - AHP products are more than just tough on leading pathogens of concern including: spores, mycobacterium, fungi, enveloped and non-enveloped viruses, and vegetative bacteria, they’re also easy on users, materials and devices.
Speed

**Contact Time** – AHP is fast acting with short contact times that ensure user compliance with label claims.

With its contact time of 1 minute or less, AHP improved our efficiency in turning rooms allowing us to help more patients.

Dr. Julie Reck

Cleaning

AHP is a **one step** disinfectant cleaner ensuring confidence surfaces are properly disinfected.

**Dirty Surfaces** – AHP cleans while it disinfects and disinfects while it cleans in one step.

Compatibility

AHP has **excellent compatibility** with most surfaces thus protecting customer assets.
AHP® is among those very rare disinfectant technologies that make every effort to minimize worker and patient exposures to harmful chemicals. — Dr. Syed Sattar

**Safety**

AHP has been formulated to be essentially non-toxic and non-irritating with the lowest EPA toxicity rating (category IV).

**Environmental Impact**

Hydrogen Peroxide is 100% biodegradable and breaks down into oxygen and water. AHP only contains ingredients that are considered environmentally preferable and sustainable. Further, AHP is certified by leading safety boards including UL (EcoLogo designation) and US EPA Design for the Environment (DfE).
AHP® is the world’s First & Only disinfectant technology platform formulated for:

Hands Surfaces Devices
A Proven Track Record of Success

An innovative discovery of stabilized hydrogen peroxide is made and becomes known as **Accelerated Hydrogen Peroxide**. **AHP** receives registration in Canada as the **FIRST** hydrogen peroxide based hospital grade disinfectant. **AHP** receives registration in the United States as the **FIRST** hospital grade surface disinfectant with a 1-minute contact time and a Category IV Safety Rating (the lowest EPA toxicity rating).

**AHP** receives FDA registration as the **FIRST** hydrogen peroxide based high level disinfectant for flexible endoscopes not containing peracetic acid. The world’s **FIRST** hydrogen peroxide based antimicrobial hand wash powered by **AHP** launches. **AHP** becomes the **FIRST** broad-spectrum disinfectant based on hydrogen peroxide to receive the Safer Choice/DfE Award.

**AHP** becomes the **FIRST** EPA registered hydrogen peroxide disinfectant to receive DfE (Design for the Environment) approval. **AHP** becomes the **FIRST** accelerated hydrogen peroxide surface disinfectant to be used on the International Space Station.

**AHP** was both the **FIRST** EcoLogo registered disinfectant-cleaner in Canada and the **FIRST** DfE registered hydrogen peroxide disinfectant in the US.

- 1998: An innovative discovery of stabilized hydrogen peroxide is made and becomes known as **Accelerated Hydrogen Peroxide**.
- 2003: **AHP** is recommended by the Ontario Ministry of Health as the **ONLY** surface disinfectant for use during the SARS crises in Canada.
- 2006: **AHP** receives registration in the United States as the **FIRST** hospital grade surface disinfectant with a 1-minute contact time and a Category IV Safety Rating (the lowest EPA toxicity rating).
- 2007: **AHP** is the **FIRST** disinfectant technology to receive EcoLogo approval in Canada and registration as a sporidical surface disinfectant effective against *C. difficile* spores.
- 2008: **AHP** receives FDA registration as the **FIRST** hydrogen peroxide based high level disinfectant for flexible endoscopes not containing peracetic acid.
- 2011: **AHP** becomes Canada’s **FIRST** 5 minute concentrated intermediate level hospital grade disinfectant with EcoLogo certification.
- 2012: **AHP** becomes the **FIRST** EPA registered hydrogen peroxide disinfectant to receive DfE (Design for the Environment) approval.
- 2014: **AHP** becomes the **FIRST** EPA registered hydrogen peroxide disinfectant to receive DfE (Design for the Environment) approval.
- 2016: **AHP** becomes the **FIRST** EPA registered hydrogen peroxide disinfectant to receive DfE (Design for the Environment) approval.
- 2017: **AHP** becomes the **FIRST** hydrogen peroxide based surface disinfectant to receive a Foot and Mouth Disease efficacy claim in North America.

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Accreditations and Validations

Proud To Be A Leader

Virox has long prided itself on Developing and manufacturing disinfectant cleaners that provide a safer and greener alternative for end users, occupants and the planet.

- **LEED® Silver Certification**
  From the USA Green Building Council Virox became the first chemical company manufacturing disinfectants in a Leed certified facility

- **EcoLogo Certified**
  Accelerated Hydrogen Peroxide® was the first disinfectant technology to receive Ecologo approval in Canada as a green certified disinfectant cleaner

- **Green Guard Certified**
  Accelerated Hydrogen Peroxide® was validated for low emitting products and materials

- **Green Seal Certified**
  Green Seal provides science based environmental certification standards that are fair, unbiased and credible that are fair, unbiased, and credible

- **EPA Safer Choice Partner of the Year Award**
  For Innovation by the USA Safer Choice Design for the Environment

- **BSI Registered**
  Virox operates an Environmental Management System which complies with ISO requirements (ISO 19001/14001)
• **MDSAP Registered**
  Medical Device Quality Management System which complies with ISO requirements (ISO 13485)

• **Canadian/American Business Council Award**
  In recognition for developing and distributing a safe and environmentally sustainable hydrogen-peroxide based disinfectant

• **Ontario Canada Business Achievement Award**
  2013 Global Innovator

• **AAHA Partner**
  Strategic Alliance Partner and Emerald Member of the American Animal Hospital Association

• **NAVTA Partner**
  Partner and Member of the National Association of Veterinary Technicians

• **RVTTC Partner**
  Partner and Member of the Registered Veterinary Technologists and Technicians of Canada

• **AASV Sponsor**
  Sponsor of the American Association of Swine Veterinarians

• **Fear Free℠ Sponsor**
  Partner of the Fear Free initiative designed to reduce fear, anxiety and stress in animals before and during a veterinary visit

• **PBA Member**
  Member of the North American Professional Beauty Association — the leading association for salon professionals

• **IPAC Sponsor**
  Platinum Sponsor of the Infection Prevention and Control Association (Canada) — the leading professional association for Infection Preventionists

• **APIC Member**
  Member of the Association for Professionals in Infection Control (USA) — the leading professional association for Infection Preventionists

• **HCPA Member**
  Member of the Household and Commercial Product Association (USA)
In-House Brands

Virox Technologies has introduced the benefits of AHP® to a number of markets with targeted formulations and brands. As we entered the various market rivalries these products provided a viable and Deliberately Different® alternative to harsh legacy disinfectants accounting for their rapid uptake and growth.
Companion Animal
Medical Device Reprocessing

Mold Remediation
In Good Company

Virox Technologies Inc. Partnerships

Our globally recognized and respected strategic alliance partners have demonstrated brand equity unparalleled in their respective markets, through joint development of high quality products, sustainable innovation, and superior end-user experience.
Consumer

Cruise Ships
In 2003 — Accelerated Hydrogen Peroxide® was the Only surface disinfectant technology recommended for use by the Ontario Ministry of Health during the SARS Outbreak in Toronto Canada.

And now... it is the First Accelerated Hydrogen Peroxide® surface disinfectant to be used in...

Space
Pushing Onward & Upward

Constantly Evolving

Through its Open Innovation philosophy, Virox Technologies has developed research and development capabilities to optimize ongoing innovation of its technology to address commercial opportunities in the $20+ billion global market for cleaning and disinfection products.
There are over 8000 disinfectant products 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.

Not to worry, we’re here to help.
Getting Our Message Out There

Virox Technologies in the Public Eye

In addition to their technical expertise and management capabilities the company’s priorities are to:

- Expand the application Accelerated Hydrogen Peroxide® technology into new end-user markets
- Maintain a business platform that is built on credibility, third party validation, endorsement of professional and academic communities, and peer-reviewed documentation
- Ensure the scientific community understands, supports and endorses AHP® technology
- Continue an education platform through blogs, websites and engaged social media
Experts in Manufacturing Hydrogen Peroxide Based Products

Virox is a full service manufacturer focused exclusively on Hydrogen Peroxide-based products.

In our 60,000 sq. ft. facility the Virox Manufacturing Group is responsible for implementation and monitoring of quality manufacturing and environmental systems. Quality begins with scrupulous vendor selection, testing of incoming raw materials, ongoing employee training programs, constantly improving plant procedures and testing of finished products.

In addition to ISO 19001 and 14001 standards, Virox Technologies Inc is a Health Canada, US EPA as well as US FDA licensed establishment which operates as per GMP (Good Manufacturing Practices) Guidelines from HPFBI (Health Products & Food Branch Inspectorate) and quality system regulations (21CFR820).
Virox Technologies Inc. is committed to innovating, developing, and improving peroxide based, sustainable cleaners and disinfectants to improve the health of people and animals all the while reducing their environmental impact. This is why One Health is at the core of all our initiatives.
The science is here
and the time is NOW.

Engineering Revolutionary Disinfectants
for the War Against Microbes