SUPRA PERFECTA TECHNOLOGIES LIMITED

effective, environmentally friendly, infection control

Problem

Current infection control (IC) products (surface disinfectants, wound care, skin care) while effective in many scenarios, have disadvantages that can impact their usability, effectiveness, and the environment.

Health Risks: Many traditional IC's contain harsh chemicals that can pose health risks to users. For instance, products containing bleach or quaternary ammonium compounds can cause skin irritation, respiratory issues, and other adverse health effects with prolonged exposure. Alcohol sanitisers are also potentially flammable and toxic if ingested.

Environmental Impact: Some IC's can be harmful to the environment. Chemicals like chlorine can produce toxic byproducts, while others may contribute to water pollution. The overuse of certain IC's can also lead to resistance among micro-organisms.

Rinsing Requirements: Many IC's leave behind residues that may require rinsing, especially on food contact surfaces. This can complicate the cleaning process and potentially lead to contamination if not properly rinsed.

Biofilm Resistance: While many IC's are effective against pathogens in suspension, they may struggle to penetrate and eliminate biofilms—complex communities of micro-organisms that adhere to surfaces. This can be a significant issue in healthcare and industrial settings.

Surface Compatibility: IC's can damage certain surfaces, particularly if they are used incorrectly or at higher concentrations than recommended. For example, acidic disinfectants may corrode metals, while harsh chemicals can degrade plastics.

Cost: Many effective IC's, especially those designed for commercial or healthcare use, can be expensive. This may limit their accessibility for smaller facilities or organizations.

Need for Proper Application: IC often depends on proper application methods, including appropriate contact time and surface preparation. Inadequate application can result in suboptimal disinfection.

Sources IMARC and Adroit Market Research

Solution - Supra Perfecta Technologies' SAHT

Stable Active Halogen Technology (SAHT)

Supra Perfecta Technologies' SAHT is the world's only scalable proprietary manufacturing process capable of producing high purity, stable HOCl (liquid and gel) across a broad pH band width, in commercially viable volumes. SAHT solutions are the world's first hypochlorous acid at a purity level exceeding 95%. This innovation sets a new standard in cleaning efficacy and safety.

The SAHT technology manufacturing process optimises the predominance of the hypochlorous molecule in solution >95% at any concentration manufactured up to 32,000 parts per million (ppm). The IP and Know How behind the production of the SAHT HOCl ensures that the pH band width of the SAHT technology ranges from pH 2.8 all the way through to pH 10.1 without compromising the chemistry or through the addition of buffers. The benefits of this pH band width are considerable and cannot be replicated by any other manufacturer of HOCl in the world. Throughout the bandwidth the technology remains >95% HOCl.

This unique trait means that there are none of the drawbacks of narrow conventional pH band widths associated with other HOCl chemistries where the higher the concentration the lower the pH and vice versa with lower concentrations. Conventional chemistry wisdom asserts that the dynamic equilibrium of HOCl peaks at pH 5.8 but the SAHT technology has proved this is not the case and that dynamic equilibrium can be attained and more importantly maintained for over 24 months plus, by any SAHT concentration, between 2.8 pH and 10.1 pH and remain >95% HOCl.

Hypochlorous acid(HOCl)

Hypochlorous acid(HOCl) is a weak but strongly oxidising acid (pH 4-5).

HOCl has been found to have exceptional antimicrobial properties, which when combined with its non-toxicity characteristics makes it the ideal wound care, hand sanitiser and high-level disinfectant solution.

HOCl is produced by white blood cells and is a natural part of the human body's internal defence system.

A high purity, stable solution of HOCl is a powerful biocide that:

- kills all pathogens such as bacteria, viruses, spores and fungi;
- is non-hazardous for use on humans and animals;
- is safe and kind to the environment;
- is a highly efficacious and effective topical wound care solution;
- will not irritate or aggravate tissue damage at wound sites; and
- demonstrates no microbial resistance

HOCl is FDA and EPA registered and approved by regulatory authorities around the world as being effective against Covid-19.

HOCl is a superior, safer, and more effective alternative to alcohol-based hand sanitisers.

HOCl is widely acknowledged to be the future and gold standard in advanced wound care and diabetic ulcer treatment.

Only traditional technology and its inability to produce pure, stable HOCl in commercially viable volumes has prevented the full adoption of HOCl as a superior, safer, cost-effective alternative to existing chemical agents.

SAHT manufacturing uses the world's only scalable proprietary manufacturing process capable of producing high purity, stable HOCl (liquid and gel) in commercially viable volumes.

SAHT solutions are the world's first hypochlorous acid at a purity level exceeding 95%.

SAHT - A new dimension in infection control

- SAHT sets completely new standards in infection control
- Rapidly kills all known pathogens
- Kill time < 15 seconds
- No pathogen can become immune
- Destroys RNA and DNA & disrupts cellular processes
- Excellent safety profile/no alcohol

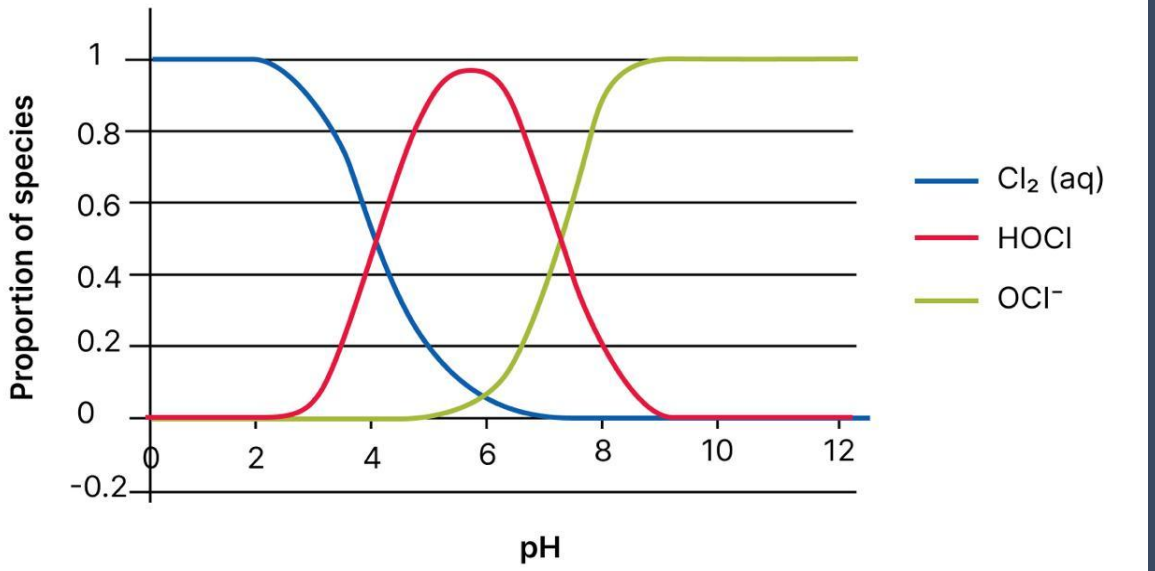
SAHT Chemistry

- Chemically manufactured – in bulk / cost effective
- >95% pure hypochlorous – '*Stable Active Halogen Solution*'
- Stable across a pH range of between 2.8 – 10.1 pH
- Concentration of HOCl constant across pH band unlike electrochemically produced HOCl
- Strengths from 2ppm to 32000ppm
- >24 month Stability proven by UV-visible spectroscopy analysis conducted at Begbroke Nano, Oxford University & LPD Labs

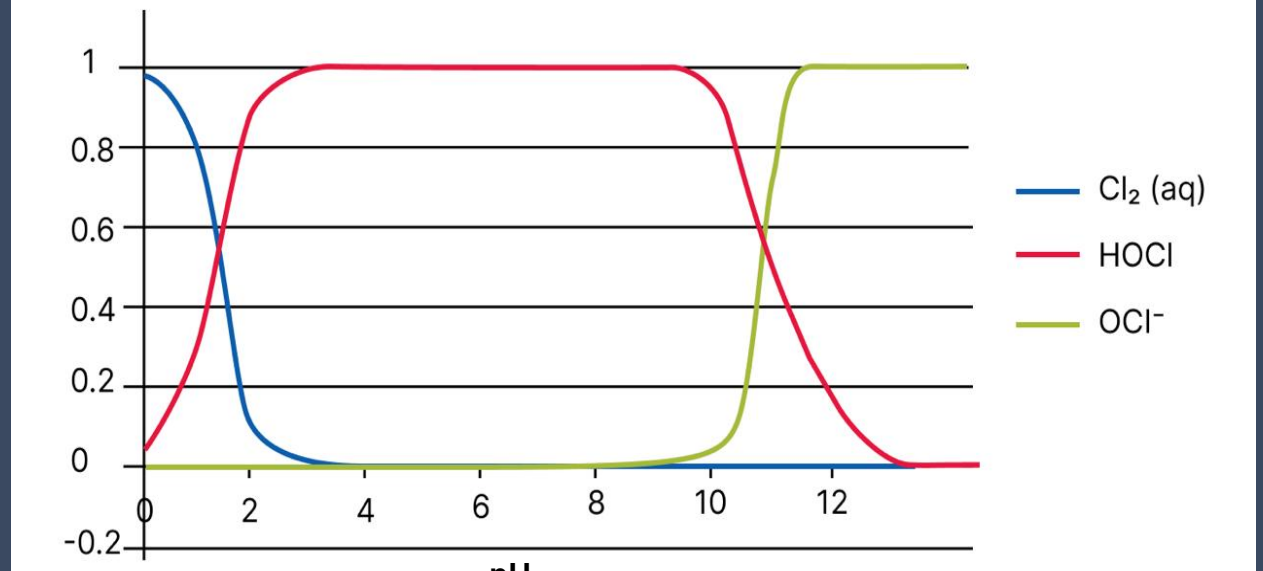
SAHT Chemistry

The Speciation of chlorine as a function of pH

Electrolytically generated HOCl



Supra Perfecta Technologies - SAHT



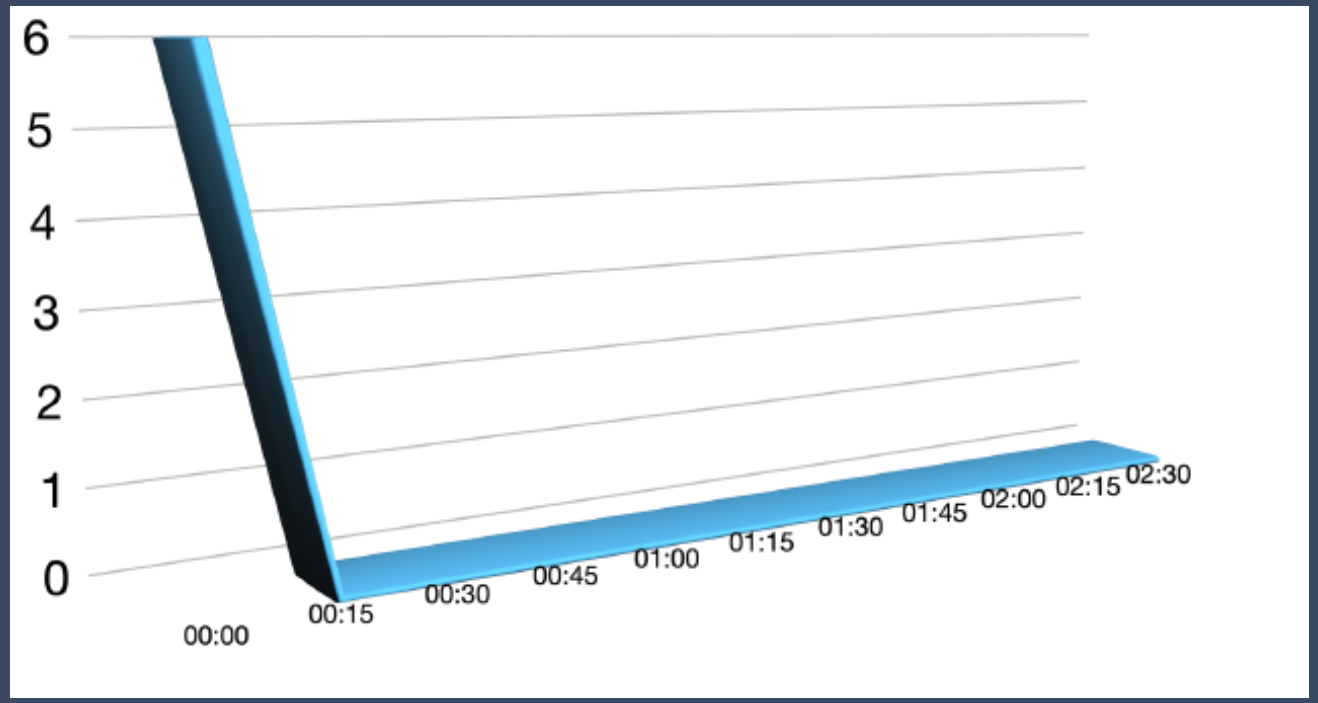
SAHT delivers previously unattainable levels of:

Disinfecting efficacy + **User safety**

Efficacy- A new dimension in infection control

Log6 reduction against C. difficile type 027

> 99.9999% within 15 seconds

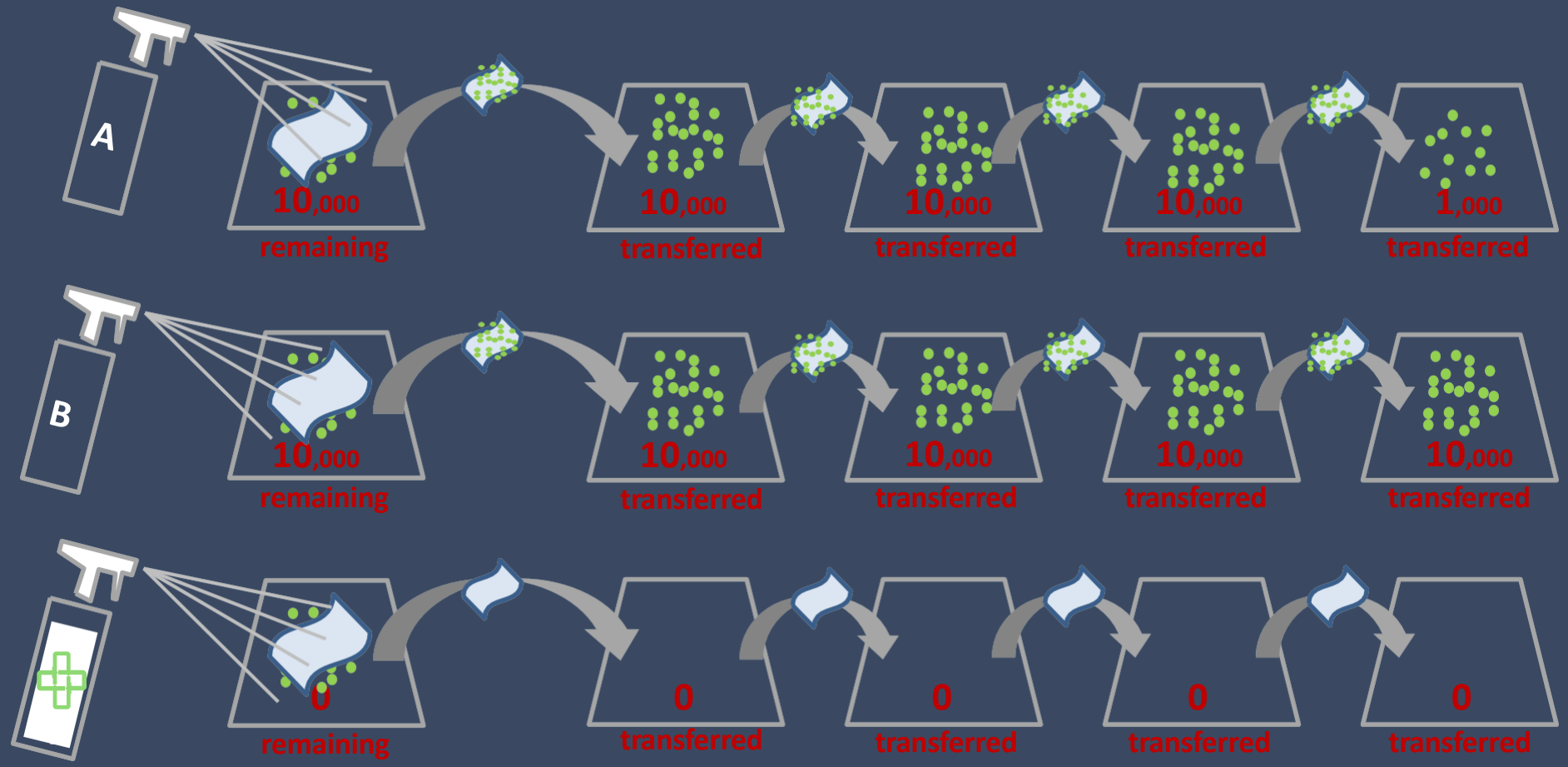


"SAHT performs significantly better than any other disinfectant currently in use by the NHS". Dr Ginny Moore - Division of Infection and Immunity - University College London Hospitals

"SAHT performs better than anything else I have ever tested" - Dr Jean-Yves Maillard - School of Pharmacy, Cardiff University

Efficacy - A new dimension in infection control

UCLH Wipe Transfer Tests - C. Difficile transfer from contaminated to sterile surfaces. NHS best in class vs SAHT



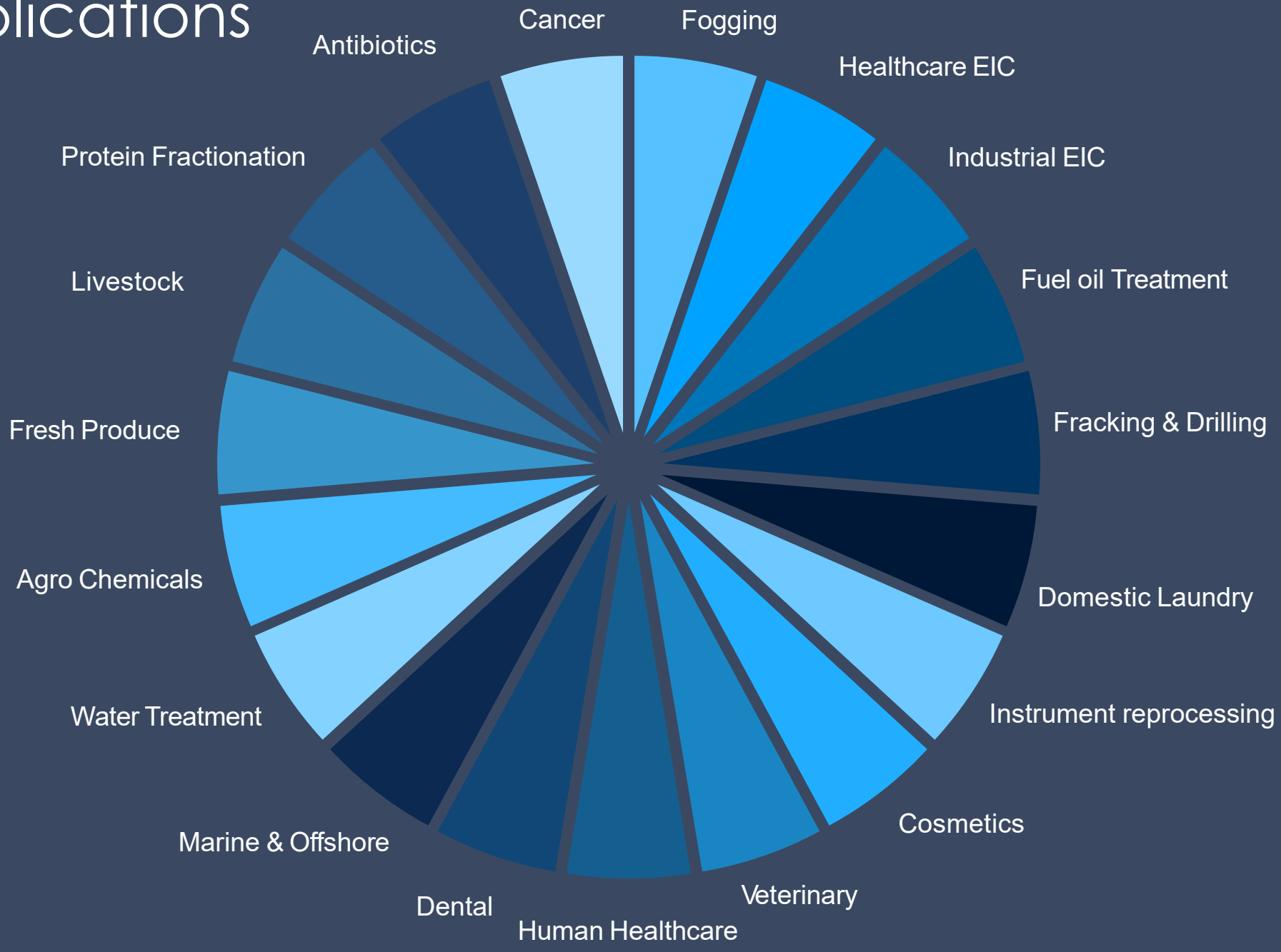
Competitive Analysis

Hypochlorous acid and Sodium Hypochlorite are both chlorine-based disinfectants, but they have key differences in terms of safety, efficacy, and environmental impact

	Hypochlorous Acid	Sodium Hypochlorite
Safety and Low Toxicity	Naturally produced by the human immune system, it is non-toxic, non-irritating, and generally safe for direct skin and eye contact at low concentrations. It can be used safely around people, animals, and food.	Highly caustic, sodium hypochlorite can cause skin, eye, and respiratory irritation. It also releases harmful fumes, especially in poorly ventilated areas, and requires protective gear for safe handling.
Neutral pH and Non-Corrosive Nature	With a neutral pH, HOCl is non-corrosive to most surfaces and equipment, making it ideal for environments with sensitive materials or electronics.	Highly alkaline, with a pH around 11-13, which can be corrosive to metals, plastics, and textiles over time. Prolonged use can degrade surfaces and damage equipment, requiring more maintenance and replacements.
Greater Antimicrobial Efficacy	More effective at killing pathogens at lower concentrations compared to sodium hypochlorite due to its higher oxidation potential. HOCl disrupts cell membranes more efficiently, allowing rapid destruction of bacteria, viruses, and spores.	Effective as a disinfectant but often requires higher concentrations and longer contact times to achieve the same results as hypochlorous acid, especially for certain bacteria and spores.
Lower Chlorine Odor	Has little to no odor, which makes it more pleasant to use, especially in enclosed areas or high-traffic spaces.	Has a strong chlorine smell, which can be overwhelming and unpleasant, especially in areas with limited ventilation. This can also cause respiratory irritation for sensitive individuals.
Environmentally Friendly	Breaks down into water and trace HCl, making it environmentally friendly and safe for disposal without needing special measures.	Degrades to release chlorinated byproducts that can be harmful to aquatic life and contribute to environmental pollution if not disposed of properly.
Application Versatility	Can be applied in a variety of ways, including through sprays, foggers, and electrostatic sprayers. It's safe enough to be used on hands, as a food-safe sanitizer, and in public areas.	Typically limited to surfaces and less flexible for certain applications due to its caustic nature and potential for skin irritation, making it less suitable for direct or sensitive applications.
Stability and Compatibility	More stable in solution when properly stored, and compatible with most surfaces, textiles, and devices, especially in lower concentrations. Greater than 24 month shelf life.	Has a significantly shorter shelf life, especially when exposed to sunlight or heat, and can degrade quickly. Its compatibility is limited due to its corrosive nature, especially at higher concentrations.

Hypochlorous acid is a safer, more effective, and environmentally friendly alternative to sodium hypochlorite. Its neutral pH, broad-spectrum efficacy, and ease of use make it a preferred choice in healthcare, food handling, and public spaces where safety and material compatibility are critical.

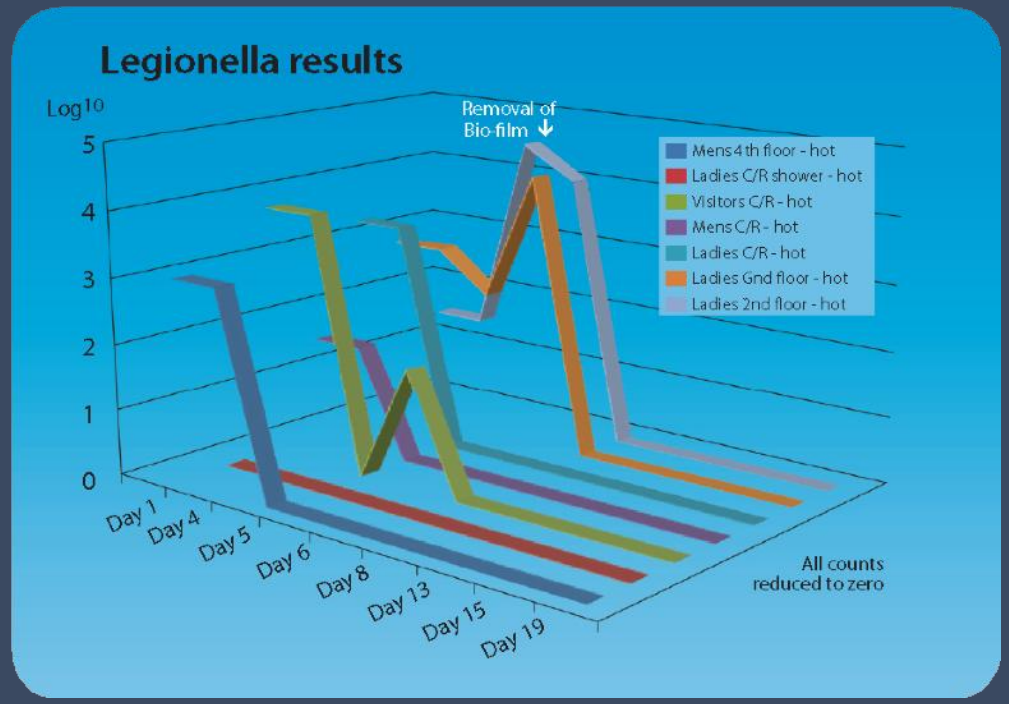
SAHT Applications

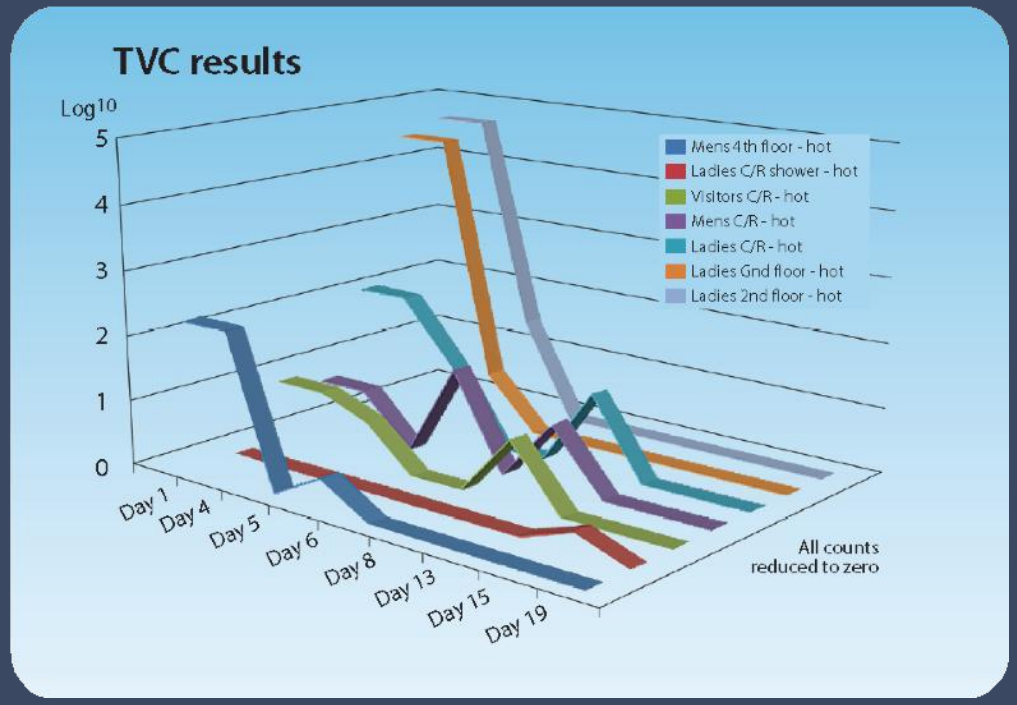


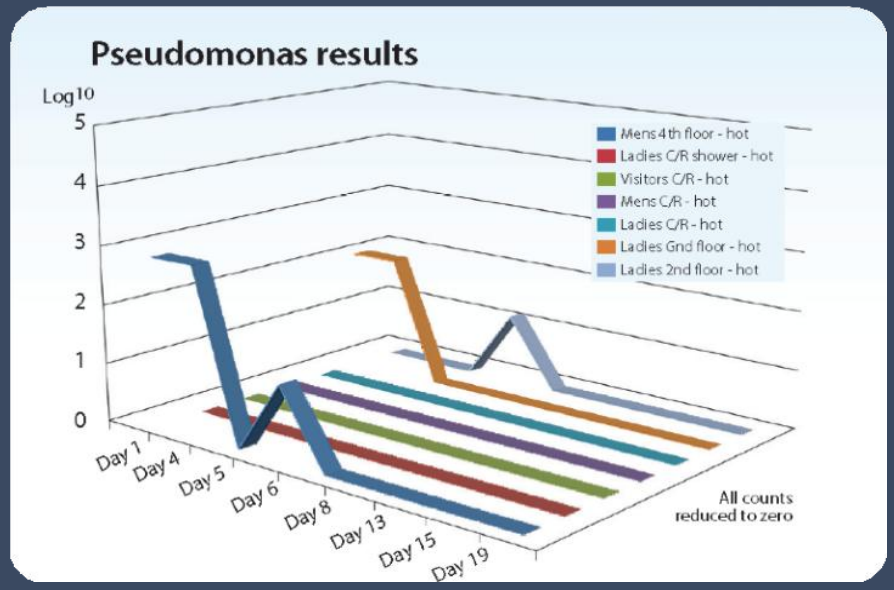
SAHT Applications

Safe Drinking water

- SAHT water treatment Technology that is far superior to any chlorine dioxide, copper silver or other chlorine chemical for water systems - whilst being cost effective and far safer to use
- High levels of microbial control / rapid bio-film removal at very low concentrations
- Meets and exceeds UK HSE water treatment standard 'L 8'







Drinking/ process water approved at 5ppm Legionella & Pseudomonas eradicated < 1ppm

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Effective • Environmentally Friendly • Infection Control

SAHT Applications

Wound Treatment

- a powerful antimicrobial cleansing agent
- broad spectrum antimicrobial action with rapid onset and low toxicity.
- encourages rapid progression to healing in wounds that have been present for often very long periods of time.
- acts as the catalyst to cell mitosis.
- non-cytotoxic antimicrobial where a biofilm- based approach to wound care is important
- invaluable in complex wounds where a solution is required to effectively cleanse and debride
- SAHT is a total and effective replacement to outdated and sub-standard wound cleansing agents

SAHT Applications

Addressing common healthcare complaints

Skin neutral pH Non sensitising Liquid or gel

Easy application Rapid results

Tonsillitis

Sore throats

Verrucas

Psoriasis

Ear infections

Insect bites

Cold sores

Nappy rash

Post waxing

Warts

Common colds

Eczema

Dandruff

Piercings

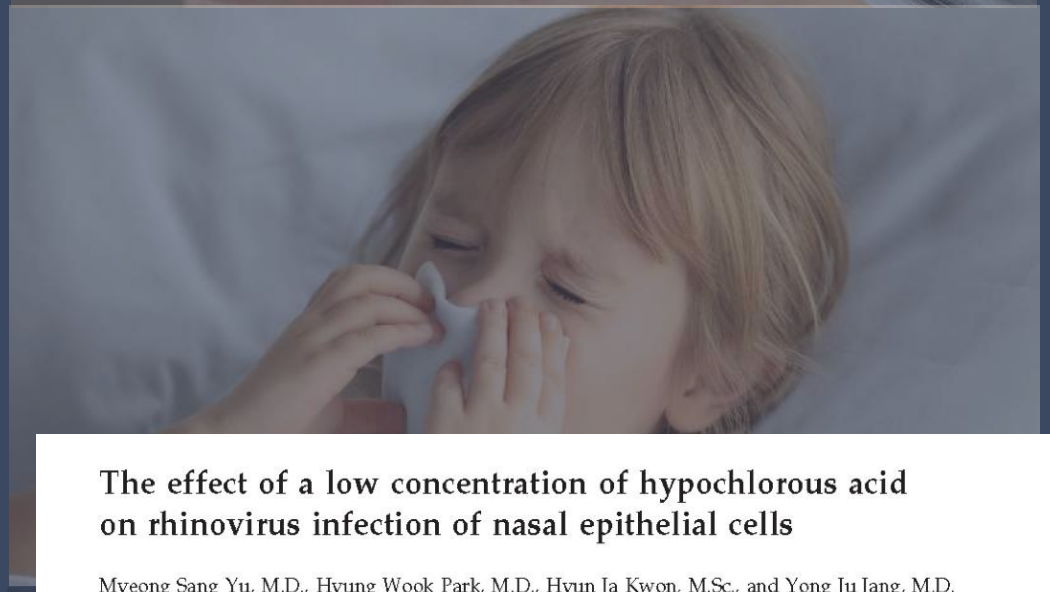
Athletes foot

Thrush

Fungal nails

Skin irritations

Acne



The effect of a low concentration of hypochlorous acid on rhinovirus infection of nasal epithelial cells

Myeong Sang Yu, M.D., Hyung Wook Park, M.D., Hyun Ja Kwon, M.Sc., and Yong Ju Jang, M.D.

ABSTRACT

Background: *Low concentrations of hypochlorous acid (HOCl) have been shown to exhibit both antibacterial and anti-influenza virus activity, but HOCl still has not been used to kill human rhinovirus (HRV). To model the antiviral effect of nasal irrigation with low-level HOCl in patients with the common cold, we tested the effects of a low concentration of HOCl on HRV infection of primary human nasal epithelial cells (HNEC).*

Methods: *Cells were infected with HRV for 24 hours and treated with HOCl three times, for 5 minutes each time, at 12 hour intervals. The effects of HOCl on rhinovirus-induced secretion of IL-6 and IL-8 were assessed by ELISA and HRV replication was determined by viral titration.*

Results: *HOCl treatment significantly inhibited HRV-induced secretion of IL-6 and IL-8 and significantly reduced viral titer. The effects of HOCl peaked at 1 minute after HOCl generation and decreased thereafter.*

Conclusion: *These in vitro findings indicate that nasal irrigation with low-level HOCl solution may improve clinical symptoms in patients with the common cold.*

(Am J Rhinol Allergy 25, 40–44, 2011; doi: 10.2500/ajra.2011.25.3545)

SAHT Applications

Food Processing & Manufacturing

- An ideal biocide in food/drink processing environments
- Achieves higher levels of surface and equipment sanitising but leaves minimal residue
- Can be washed sprayed or misted
- Delivers higher levels of food safety
- Reduced produce wastage
- Greater produce longevity

"SAHT delivers significantly higher levels of decontamination of surface micro organisms on vegetable and plant tissue than can be achieved with equivalent concentrations of hypochlorite".

Dr Hugh Martin
BSc, MSc, PhD, DIC
Principal Lecturer in Agri Science
Royal Agricultural College,
Cirencester

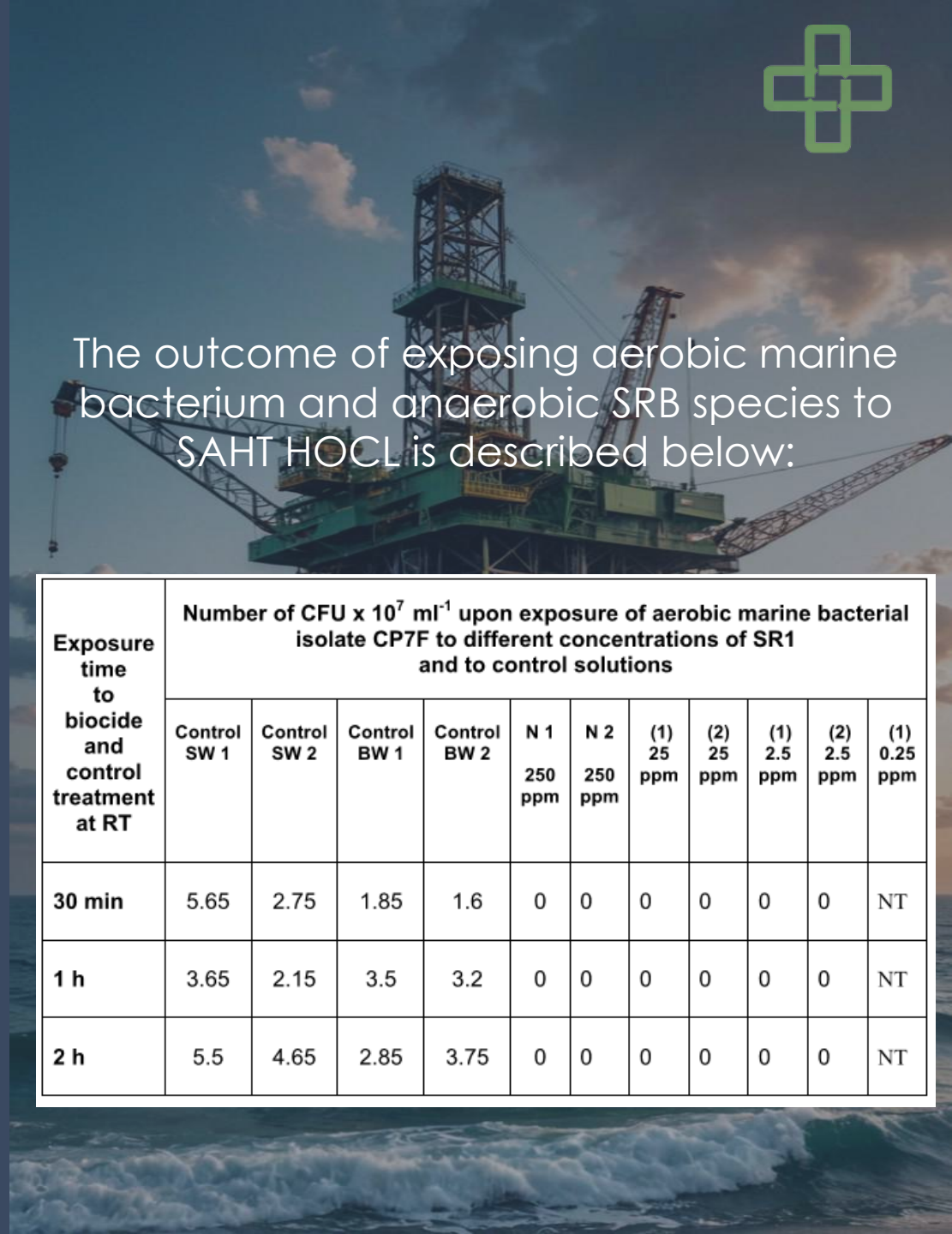
SAHT Applications

Oil & Gas Retrieval & Processing

- The main challenge in oil production and storage is sulphate reducing bacteria ("SRB") – which not only "sour" the reservoir but also cause significant pipeline corrosion. These bacteria 'breathe' sulphates in the water and 'exhale' hydrogen sulphide (H_2S), a highly toxic and corrosive compound. Not only does H_2S present a life-threatening hazard to offshore workers - the industry records deaths from isolated cases of H_2S exposure on a regular basis – its corrosiveness has a major impact on sub-sea infrastructure such as pipelines increasing maintenance costs and heightening the risk of environmentally disastrous oil leaks and spills.

- From an economic perspective, microbially-influenced corrosion ("MIC") costs the industry billions in maintenance and repair expenditure every year. The increased sulphur content of crude oil that is caused by SRB activity and H_2S can decrease its value by more than 20%.

- Dr Iwona Beech, one of the world's leading experts on bio-film corrosion, has proven our product to be highly effective in eliminating sulphate reducing bacteria, which are responsible for almost all oil-based corrosion on oil platforms and in oil pipelines, fuel storage tanks and fuel transportation.



The outcome of exposing aerobic marine bacterium and anaerobic SRB species to SAHT HOCL is described below:

Exposure time to biocide and control treatment at RT	Number of CFU x 10^7 ml^{-1} upon exposure of aerobic marine bacterial isolate CP7F to different concentrations of SR1 and to control solutions										
	Control SW 1	Control SW 2	Control BW 1	Control BW 2	N 1 250 ppm	N 2 250 ppm	(1) 25 ppm	(2) 25 ppm	(1) 2.5 ppm	(2) 2.5 ppm	(1) 0.25 ppm
30 min	5.65	2.75	1.85	1.6	0	0	0	0	0	0	NT
1 h	3.65	2.15	3.5	3.2	0	0	0	0	0	0	NT
2 h	5.5	4.65	2.85	3.75	0	0	0	0	0	0	NT

SAHT Applications

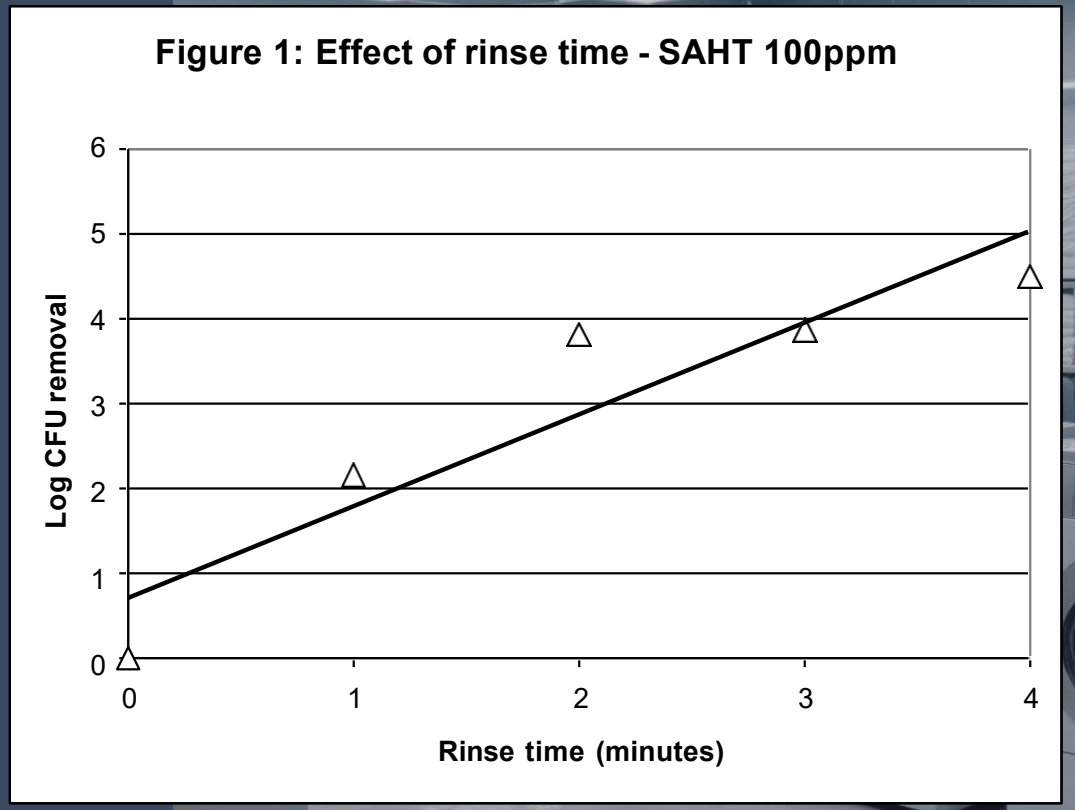
Laundry Hygiene

Used for all hard surface and fogging applications by the UK's largest healthcare laundry group SAHT @100ppm achieves >4 log10 reduction at temperatures of 30 degrees

Domestic/ Industrial applications:

- Nurses' uniforms
- Care home laundry
- Reusable nappies
- Children's clothes
- Periodic machine cleaning washes
- Odour control

Radical reduction of energy usage and carbon footprint.

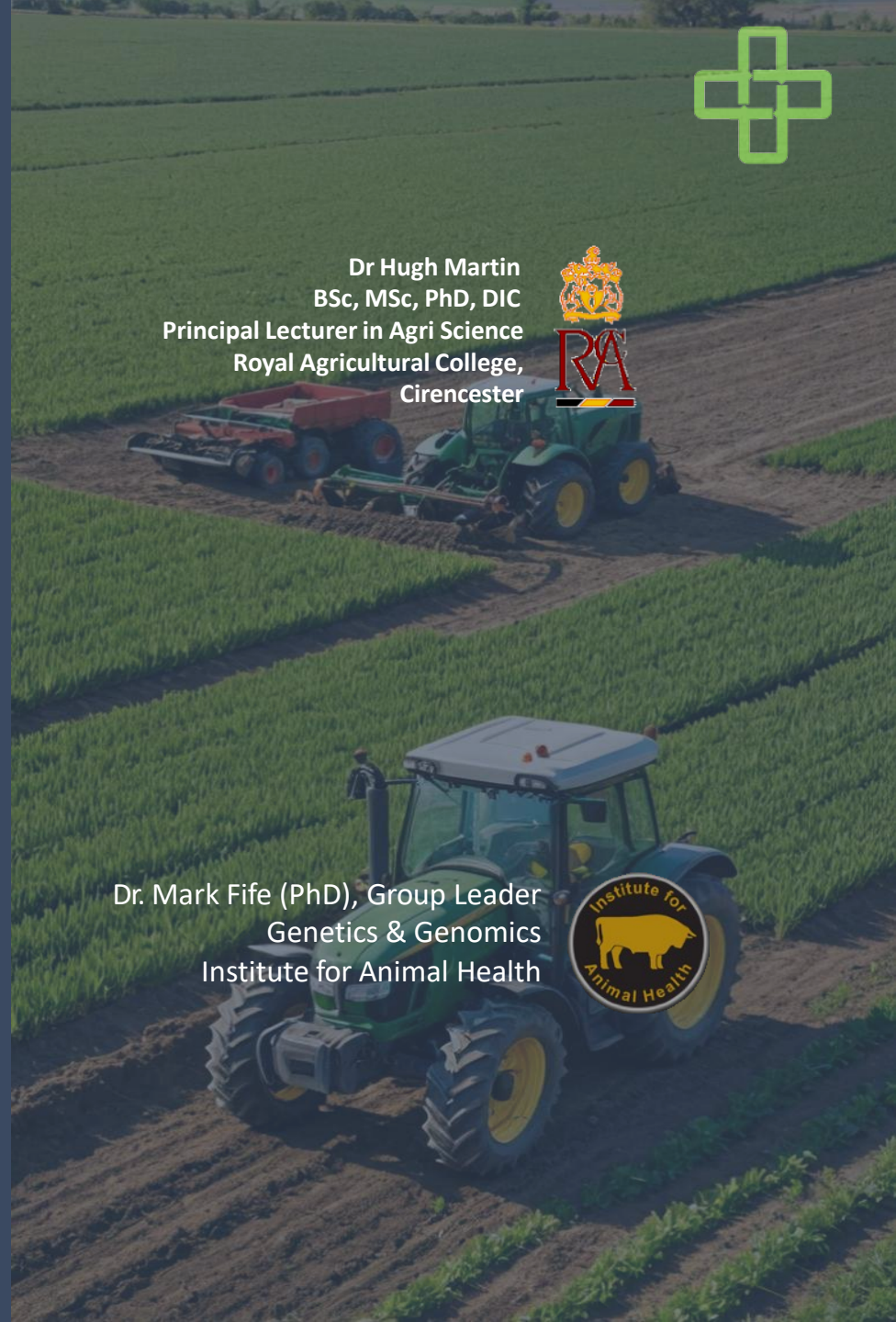


Dr John Holton UCLH / Dr Ray Morris -– Sunlight Healthcare

SAHT Applications

Agrochemical - “A nature replicating chemistry that works with the environment”

- Seed priming - Speed of germination is increased, and emerging seedlings grow stronger and more uniformly
- Crop protection - Prevents crop rot and powdery mildew
- Mite eradication - Eradicates the two spotted Californian spider mite
- Bio security - Highly effective against foot and mouth, blue tongue, H5 N1 etc
- Livestock hygiene - Very effective when used as a terminal disinfectant in animal housing and dairy environments. Dairy applications include teat hygiene.
- Health protection - Can be dosed into drinking water to reduce incidence of infection and remove pathogens such as salmonella.



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Principal Lecturer in Agri Science
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Dr. Mark Fife (PhD), Group Leader
Genetics & Genomics
Institute for Animal Health

Management Team

CHRIS MALLET – FOUNDER & CTO

Chris' ability to pair innovation with practical delivery has led him to work with companies such as BUPA, Unilever, Cadbury's, Scottish & Newcastle, British Sugar, and Trebor Bassett. Chris has been responsible for founding, developing and selling several well-known brands including Edinburgh Gin, Undergear (sold to Fludes and later sold to Helly Hansen), J2O and Pale Rider. Chris was the inventor and founder of Steribottle. Steribottle is the world's first single-use, disposable, totally environmentally friendly infant feeding bottle and system. It is one of the UK's top-selling baby bottles and is available in North America, Asia, and Europe. Steribottle was sold to Mayborn Group in 2003 for £7 million.

SIMON BLAKEBROUGH - CSO

In 2005, Simon became the CIO of a private investment group, focused on property acquisitions in Eastern Europe. During his 3-year tenure, the company traded over 1,500 properties across the region. In 2007 Simon established his own property development company and began building apartments and hotels in Romania, including the Hampton by Hilton in Cluj in 2014. During his 25 years in real estate, Simon has gained extensive knowledge and experience in the commercial and residential sectors across Europe and the UK. He has developed over £140m of property and raised over £100m of co-funding from his investor network. Simon brings expertise, passion and business knowledge to the day-to-day running of the projects and the group.

ALAIN GIRAUD - CEO

After completing his MBA, he left practice to found and manage Phoenix Capital, a diversified financial services company specialising in corporate finance, M&A, capital market and private equity advisory. During his career Alain has advised listed companies, private equity funds, and private companies in respect of over £500m of successfully concluded transactions and raised in excess of £400m of debt and equity capital. In addition, Alain has held roles in asset management, managing a portfolio of commercial and retail real estate assets valued in excess of £110m and as the group commercial director of a multinational mining technology company overseeing the finance, supply chain, and technology & product commercialization functions.

JOHN ALLEN - CFO

Entrepreneurial CFO with forty-years-experience in product innovation, new/niche market creation, planning, team building and delivery. Thirty-years-experience in design, implementation and integration of innovative financial solutions for investment banks. Sound financial background. Effective communicator with investors, colleagues and clients. Successfully competed and eventually partnered with IBM, SAP, Oracle, Peoplesoft and KPMG. Raised finance from VC's and Private Equity, generating shareholder value and successful exits.

Management Team

JOHN WEBSTER - PRODUCTION/TECHNINCAL DIRECTOR

John is a Chartered Chemist and Molecular Biologist with over 35 years of experience in the chemical, pharmaceutical, and nutraceutical sectors. Throughout his career, he has built deep expertise in manufacturing, product and system development, and process optimisation, leading innovation and operational excellence across a wide range of projects. As Production & Technical Director at Supra Perfecta Technologies, John thrives on working closely with customers, applying his technical knowledge and practical experience to develop tailored solutions that address complex operational and manufacturing challenges. His hands-on approach and problem-solving mindset have earned him a reputation for delivering results that enhance both efficiency and product quality. Outside of work, John enjoys walking his dog and spending time with his family.

Global Sales Team

JAMES NORRIS - GLOBAL SALES

With over 30 years of top-level expertise in sales and marketing, James brings a wealth of experience across diverse sectors globally, including technology, F&B, pharma, recruitment, oil & gas, and hospitality. His focus is on building adaptable, high-performance teams that deliver across multiple regions, consistently achieving successful outcomes for some of the world's leading brands. Today, James is dedicated to offering end-to-end sales and marketing solutions that support innovative brands in entering and scaling in global markets strategically.vThis includes customized strategies tailored to maximize regional impact, as well as exploring opportunities for funding to help brands realize their full potential. James' approach is rooted in providing comprehensive solutions to empower businesses across every key region—from Europe, Asia, and Australasia to the Middle East, Africa, and the Americas.

JACQUES ISABELLE - GLOBAL SALES

Jacques brings extensive global expertise in sales and private markets across real estate, litigation finance, and consumer products. He previously served as Head of Private Markets at a leading Australian wealth management and investment banking firm with over half a billion AUD under management, where he specialized in capital raising and structuring partnerships for global opportunities. With a strong international network of investors, family offices, funds, and distributors, Jacques has a proven ability to secure market entry, scale innovative products, and unlock new revenue streams across multiple regions. Through his career, he has successfully built long-term partnerships by connecting businesses with strategic capital and distribution opportunities in key geographies such as the Middle East, Europe, Asia, Australasia, Africa, and the Americas. His ability to align the right technologies with the right partners has consistently delivered growth and value creation. At SPT, Jacques focuses on leveraging his global sales network to position the company's innovative technologies with investors and distributors worldwide. His role is to ensure sustainable market growth through well-structured partnerships, strategic funding opportunities, and access to his established contacts in every major region.

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Alain Giraud
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