

SANI-99™

BETTER DISINFECTING



Advanced Disinfection for Legionella Control.

A microscopic view of Legionella pneumophila bacteria, showing a large, detailed rod-shaped bacterium in the foreground and several smaller ones in the background, all set against a blue background. A red curved graphic element separates the image from the text on the right.

A critical imperative for Public Health safety.

Legionella pneumophila, a formidable waterborne pathogen, poses significant health risks in a variety of aqueous environments including [cooling towers](#), [spa pools](#), and [complex plumbing systems](#). The bacterium is notorious for causing [Legionnaires' disease](#), a severe respiratory infection that can be fatal if not properly managed. Effective control of Legionella is not merely beneficial but essential, mandated by health regulations globally to safeguard public health.

Challenges in Effective Legionella Control

Traditional approaches to controlling Legionella, such as [chlorination](#) and [thermal disinfection](#), often fall short in the face of the bacterium's [resilience within biofilms](#). These biofilms are protective matrices that shield Legionella from standard treatment methods, enabling the bacteria to survive and proliferate even after treatment. The inadequacy of these conventional methods presents ongoing risks to health and compliance with health safety standards.



The SANI-99™ Solution

SANI-99™ introduces an innovative, scientifically formulated approach to Legionella control. Designed to **penetrate and dismantle biofilms**, **SANI-99™** ensures comprehensive eradication of Legionella by directly targeting and destroying the bacteria at their source. This not only eliminates the immediate threat but also **prevents future growth**, addressing the persistent challenge of *biofilm-associated recolonisation*.

Scientific Validation of SANI-99™

SANI-99™ has undergone rigorous testing in controlled environments to verify its effectiveness against Legionella. For instance, one study documented initial samples with Legionella concentrations exceeding 22,500 colony-forming units (CFU) per 500 ml. Post-treatment with **SANI-99™**, the outcome was exceptionally positive. After a 10-day incubation period, tests showed no detectable Legionella in the samples, confirming the disinfectant's robust capability to eradicate the bacteria entirely. These findings highlight the significant antimicrobial properties of **SANI-99™**, emphasising its essential role in maintaining water safety and public health.

Mechanism of Action

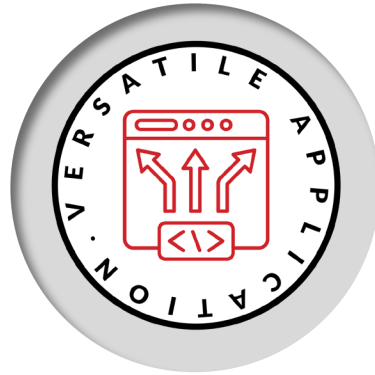
The effectiveness of **SANI-99™** can be attributed to its capacity to disrupt the *extracellular polymeric substance (EPS) matrix within biofilms*. This disruption exposes the encapsulated Legionella to **SANI-99™**'s biocidal agents, which are specifically engineered to penetrate and dismantle bacterial cell walls, resulting in bacterial demise. The formula is designed to provide a *residual disinfecting effect*, preventing the reformation of biofilms and subsequent recolonisation by Legionella, thereby ensuring sustained protection of water systems.



Key Features



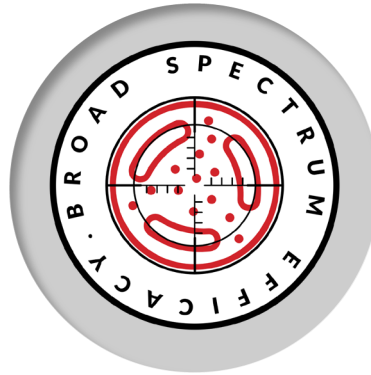
SANI-99™ is formulated without alcohol or chlorine, making it a safer choice that minimises health risks for both maintenance personnel and end-users. Its gentle yet effective formula ensures thorough disinfection without harsh chemicals.



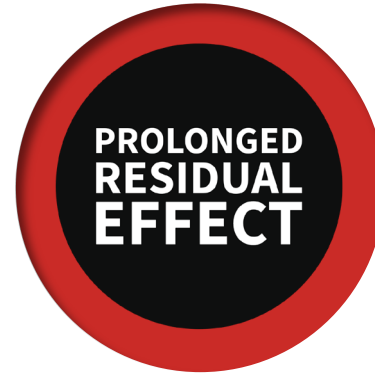
Designed for flexibility, **SANI-99™** can be used in a variety of water systems, from industrial cooling towers to residential spas. Its compatibility with existing dosing systems makes it easy to integrate into any maintenance routine without the need for specialised equipment.



By reducing the frequency of treatments required, **SANI-99™** helps lower ongoing operational costs. Its potent efficacy means less product is needed per application, making it a cost-efficient solution for maintaining water system safety and compliance.



SANI-99™ effectively eradicates a wide range of pathogenic bacteria, including various strains of Legionella responsible for outbreaks. This comprehensive action ensures all potential health threats within water systems are addressed, keeping facilities safe and compliant.



SANI-99™ provides long-lasting protection against the regrowth of harmful bacteria. Its residual activity continues to work long after the initial application, extending the time between treatments and maintaining high standards of hygiene and safety.



The biodegradable nature of **SANI-99™** underscores its environmental benefits. Free from harsh chemicals and toxins, it helps facilities maintain ecological balance while achieving their sanitation goals.

Certified Effectiveness.

SANI-99™'s effectiveness and safety are not just claimed; they are validated by rigorous certifications and approvals that comply with international standards. These endorsements are crucial for facility managers, maintenance teams, and health and safety officers who must meet regulatory requirements for water safety and environmental responsibility. Here's an overview of some of the key EN certifications and what they represent:



EN 1276

This standard is crucial for disinfectants used in food, industrial, domestic, and institutional areas to ensure they possess bactericidal activity. For Legionella control, a product meeting this standard would be effective in eradicating bacteria from water systems, thereby reducing the risk of Legionnaires' disease.



EN 13697

This quantitative non-porous surface test is essential for products used to disinfect surfaces in food, industrial, domestic, and institutional areas. Disinfectants effective against Legionella on surfaces can prevent the organism from entering water systems, thus mitigating the risk of infection.



EN 13727

This test is designed for quantitative suspension tests for the bactericidal activity of chemical disinfectants in the medical area, which would include products suitable for controlling Legionella in hospital water systems, critical for preventing nosocomial infections.



EN 14476

This standard assesses the virucidal activity of chemical disinfectants. If a product can kill viruses effectively, it's also likely robust against bacteria like Legionella, especially in disinfection procedures where both virus and bacterial control are necessary.

Regulatory Compliance.

SANI-99™ is specifically formulated to ensure that facilities meet rigorous water safety and public health standards across the UK and Europe. The product's alignment with various regional regulations and standards provides assurance, demonstrating that **SANI-99™** plays a crucial role in achieving compliance with stringent local, national, and European directives.

UK Regulations

In the UK, control of Legionella is mandated under the Health and Safety at Work Act (1974), guidance is provided in the Approved Code of Practice (ACOP) L8, issued by the Health and Safety Executive (HSE). This code prescribes that all premises with water systems must actively manage the risk of Legionella. SANI-99™'s efficacy against a wide range of Legionella strains makes it an ideal solution for facilities needing to comply with these standards.

EU Regulations

SANI-99™ is certified by the European Chemicals Agency (ECHA) for Product Types 1, 2, 3, and 4, encompassing human hygiene, veterinary hygiene, and disinfectants for food and feed areas. This ensures compliance with stringent EU biocidal regulations, demonstrating SANI-99™'s effectiveness and commitment to safety and environmental sustainability. Additionally, it meets the EN 1276 and EN 13697 standards, affirming its efficacy across various environments within the EU.

Environmental & Safety Compliance

SANI-99™ supports facilities in meeting the criteria set by the EU's Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) regulation, which aims to improve the protection of human health and the environment from the risks posed by chemicals. SANI-99™'s biodegradable and non-toxic formula ensures that its use does not contribute to environmental pollution, helping facilities maintain compliance with strict EU environmental standards.

Cultural Compliance

The inclusion of Halal and Kosher certifications for SANI-99™ assures that it meets specific dietary and cultural standards, which is particularly relevant in the diverse cultural landscape of the UK and Europe. These certifications facilitate the use of SANI-99™ in a variety of contexts, including food production and hospitality industries, where adherence to religious standards is paramount.

Applications for Legionella Treatment



Cooling Tanks

Usage: SANI-99™ can be applied directly to the cooling tank water systems to prevent the formation and growth of Legionella by disrupting and removing biofilms that harbour these bacteria.

Benefit: Regular application not only inhibits Legionella growth but also enhances the operational efficiency and extends the service life of cooling systems.



Cold Water Storage Tanks

Usage: SANI-99™ can be utilised in CWSTs to treat and prevent Legionella contamination. This is especially critical in systems where water stagnation can occur, providing ideal conditions for Legionella proliferation.

Benefit: Ensures a safe and Legionella-free water supply for residential and commercial buildings, reducing the risk of Legionnaires' disease outbreaks and maintaining public health standards.



Hot Water Storage Vessels

Usage: In HWSVs, SANI-99™ manages Legionella by maintaining water temperatures outside the growth range of these bacteria and treating the water to kill any existing Legionella.

Benefit: Provides a continuous supply of safe hot water, crucial for preventing Legionella growth and ensuring compliance with health and safety regulations.

Additional Considerations for Legionella Control

Expansion Tanks: Although primarily used to manage pressure in hot water systems, maintaining cleanliness and appropriate **SANI-99™** treatment in expansion tanks can further safeguard against Legionella by ensuring no part of the system is conducive to bacterial growth.

Comprehensive Protection Across All Water Systems

SANI-99™ offers a versatile solution for managing Legionella risks across various water storage and heating systems. Its proven efficacy helps facility managers and health and safety officers ensure that water systems are not only compliant with regulatory requirements but also provide safe water for all users.





Versatile Application.

SANI-99™'s versatile formulation makes it suitable for a broad range of applications across different sectors and facilities. Here are some examples where **SANI-99™** can be effectively used to control Legionella and other pathogens, ensuring water safety and compliance with health standards.



Residential Complexes

SANI-99™ can be utilised in the water supply systems of large residential complexes to inhibit the growth of Legionella, particularly in systems with extensive piping. This protects residents from potential waterborne diseases, promoting a healthy living environment.



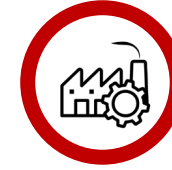
Hospital Water Systems

In hospitals, SANI-99™ is crucial for preventing Legionella in both hot and cold water systems, addressing the high risks associated with nosocomial infections. This ensures the safety of immunocompromised patients by maintaining stringent hygiene standards and effectively reducing the risk of Legionnaires' disease outbreaks.



Commercial Spas & Pools

SANI-99™ can be used in spas and pools to control and prevent Legionella, ensuring water is not only clean but also safe from this dangerous pathogen. Regular treatment with SANI-99™ helps maintain public health standards and provides users with a safe aquatic environment.



Manufacturing Facilities

SANI-99™ can be used in manufacturing facilities to control Legionella in water systems, ensuring a safe working environment and reducing downtime and maintenance needs related to water system management.



Food Processing Plants

SANI-99™ can be incorporated into water systems used in food production areas to prevent contamination and ensure adherence to food safety standards, thus avoiding food contamination issues and ensuring product safety and regulatory compliance.



Hotel Water Systems

SANI-99™ can be utilised in hotel plumbing systems to specifically target and eliminate Legionella in water outlets such as shower heads and taps. This proactive approach is essential for protecting guests from potential Legionnaires' disease, thereby enhancing overall guest safety and satisfaction.



Schools & Universities

SANI-99™ is employed in educational institutions to control Legionella in water heating systems, especially crucial during periods of reduced activity like summer breaks. This application ensures that water systems remain free from Legionella, safeguarding the health of students and staff.



Cruise Ships

SANI-99™ can be integrated into the water systems of cruise ships, where water storage and piping systems are susceptible to Legionella growth due to variable usage levels.

Simple Application.

To facilitate the proper use and integration of **SANI-99™** into various water systems, this section provides a step-by-step guide complemented by visual diagrams, helping users understand how to effectively deploy the product.

Clean and inspect all dosing equipment and storage containers to ensure they are free of residues from previously used chemicals to prevent chemical interactions.

Measure the required amount of SANI-99™ based on the volume of the water system and the recommended dosage for specific applications. Dissolve the SANI-99™ in an appropriate amount of water to form a homogenous solution.

Use standard dosing pumps to introduce the SANI-99™ solution into the water system. Ensure that dosing points are set for optimal dispersion throughout the system.



**Step One - Equipment
Preparation**

**Step Two - Powder
Dilution**

**Step Three - System
Integration**

Cooling Towers: Introduce SANI-99™ solution into the water sump or directly into the cooling water, preferably during periods of low activity to ensure thorough mixing.

Domestic Water Systems: Inject the SANI-99™ solution at a central point within the water supply to ensure it disperses evenly to all outlets, such as taps and showerheads.

Allow the SANI-99™ solution to circulate throughout the system for a sufficient period to guarantee extensive contact with all internal surfaces and potential biofilm sites. The recommended circulation time can vary, so refer to SANI-99™ guidelines for specifics related to different systems.

Conduct periodic water quality tests at various system points after applying SANI-99™ to verify its effectiveness in controlling Legionella. Adjust the concentration or application frequency based on test results and system feedback to maintain optimal performance.

Step Four - Application

**Step Five - Circulation
& Contact Time**

**Step 6 - Monitoring
& Adjustments**

Competitor Analysis: **Product Comparison Table.**

Feature/Benefit	SANI-99™	Competitor Products
Effectiveness	High effectiveness; penetrates and disrupts biofilms completely.	Often inconsistent due to failure to penetrate biofilms.
Cost Efficiency	Lower operational costs due to reduced treatment frequency.	Frequent reapplications increase costs. Risk of fines for non-compliance.
Environmental Impact	Biodegradable, chemical-free, and environmentally friendly.	Produces harmful byproducts; higher carbon footprint due to energy use in thermal treatments.
User Convenience	Easily integrates into existing systems with minimal disruption.	Requires complex system modifications and extensive downtime.
Safety	Non-toxic and safe to handle, reducing health risks for staff.	Handling and use of hazardous chemicals require strict safety protocols.
Long-term Efficacy	Long-lasting residual effects prevent bacterial regrowth.	Diminished over time due to bacterial resistance.
Application Versatility	Highly adaptable to various water systems without additional setup.	Limited by system compatibility and chemical interactions.
Toxicity	Completely non-toxic, enhancing safety for users and the environment.	May contain toxic substances that pose health risks.

OUR CONTACT

We are here to be your partner in achieving superior water treatment solutions. Don't hesitate to reach out to us for comprehensive information on how **SANI-99™** can revolutionise and elevate your water treatment processes. Whether you are in need of tailored solutions for municipal, industrial, agricultural, or other applications, our team is ready to provide you with the expertise and support required to meet your specific needs.



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