

TECHNOLOGY FOR LEGIONELLA PREVENTION



Advanced Electrochemical Activation (ECA) for Safe, Effective Water Disinfection

THE HIDDEN THREAT

Legionella

Legionella is a dangerous bacterium commonly found in hot water systems. If inhaled, it can trigger a severe form of pneumonia—Legionnaires' disease—with potentially fatal consequences. It spreads through tiny airborne droplets (aerosols) released by shower heads, tap aerators, whirlpool baths, HVAC systems, and other water-based sources.

Conventional Disinfection Isn't Enough

Traditional methods rely on aggressive chemicals like chlorine dioxide or heavy metals such as copper and silver. These approaches pose risks to human health, infrastructure, and the environment.

Key Sources of Legionella:

- Showers & tap aerators
- Whirlpool baths
- HVAC systems
- Other water-based sources

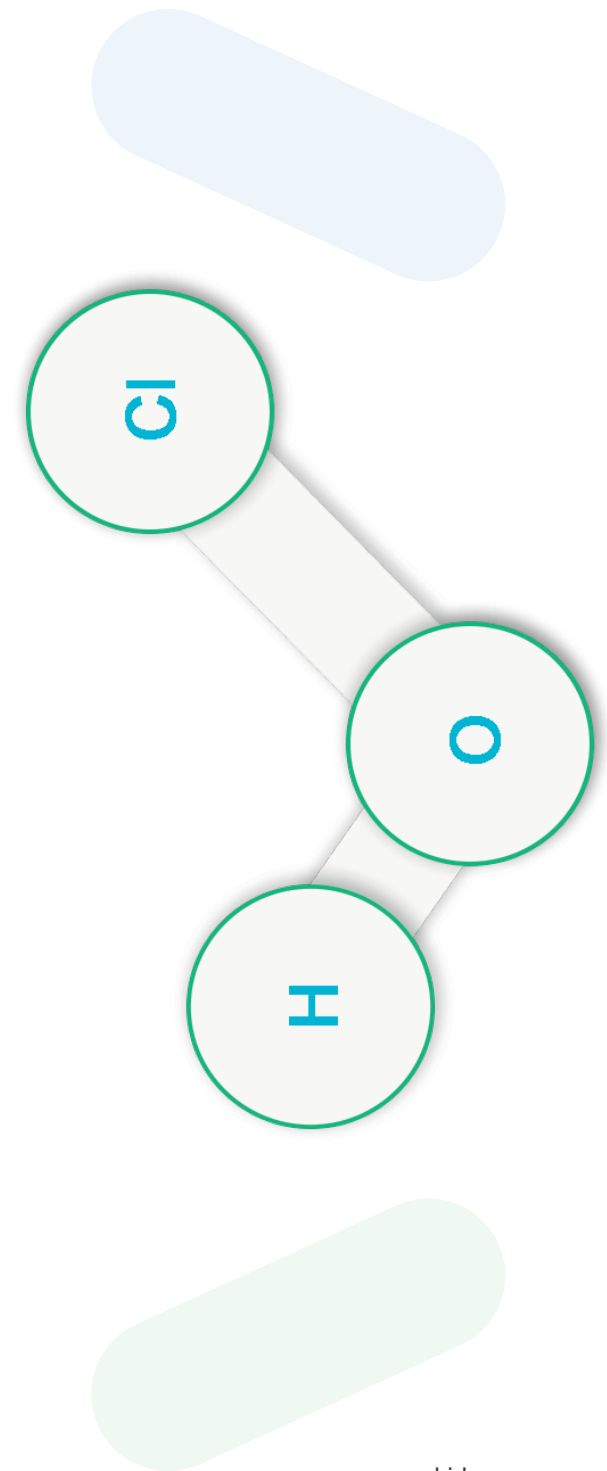


INSPIRED BY NATURE. ENGINEERED FOR SAFETY.

We set out to find a safer, smarter solution—drawing inspiration from the human immune system. Sicursan®, our electro-activated disinfectant, mimics the action of white blood cells by generating Hypochlorous acid (**HOCL**), a natural antimicrobial agent. Using only salt, water, and electricity, Sicursan removes Legionella, biofilm, and other pathogens safely and effectively.

- No hazardous chemicals
- No complex procedures
- Just reliable protection—at home, in hospitals, schools, and care facilities

Sicursan: Devastating against pathogens. Safe for people. Smart for the planet.



HOW IT WORKS

Electrochemical Activation (ECA) System

Kirkmayer's patented Electrochemical Activation (ECA) system harnesses electrolysis to energize a saline solution, generating a potent blend of mixed oxidants—including active chlorine species (HOCl and OCl⁻)—to deliver one of the most advanced and effective disinfection technologies available today.

For Legionella prevention in water circuits, the disinfectant solution is continuously injected in very low concentrations. This regular dosing not only ensures safe and effective microbial control without altering water quality, but also prevents the regrowth of biofilm inside the pipes.



Solution	Active Element	pH Range	ORP (mV)
Sicursan	Active Cl 700 ppm	6,8–8,3	910-800

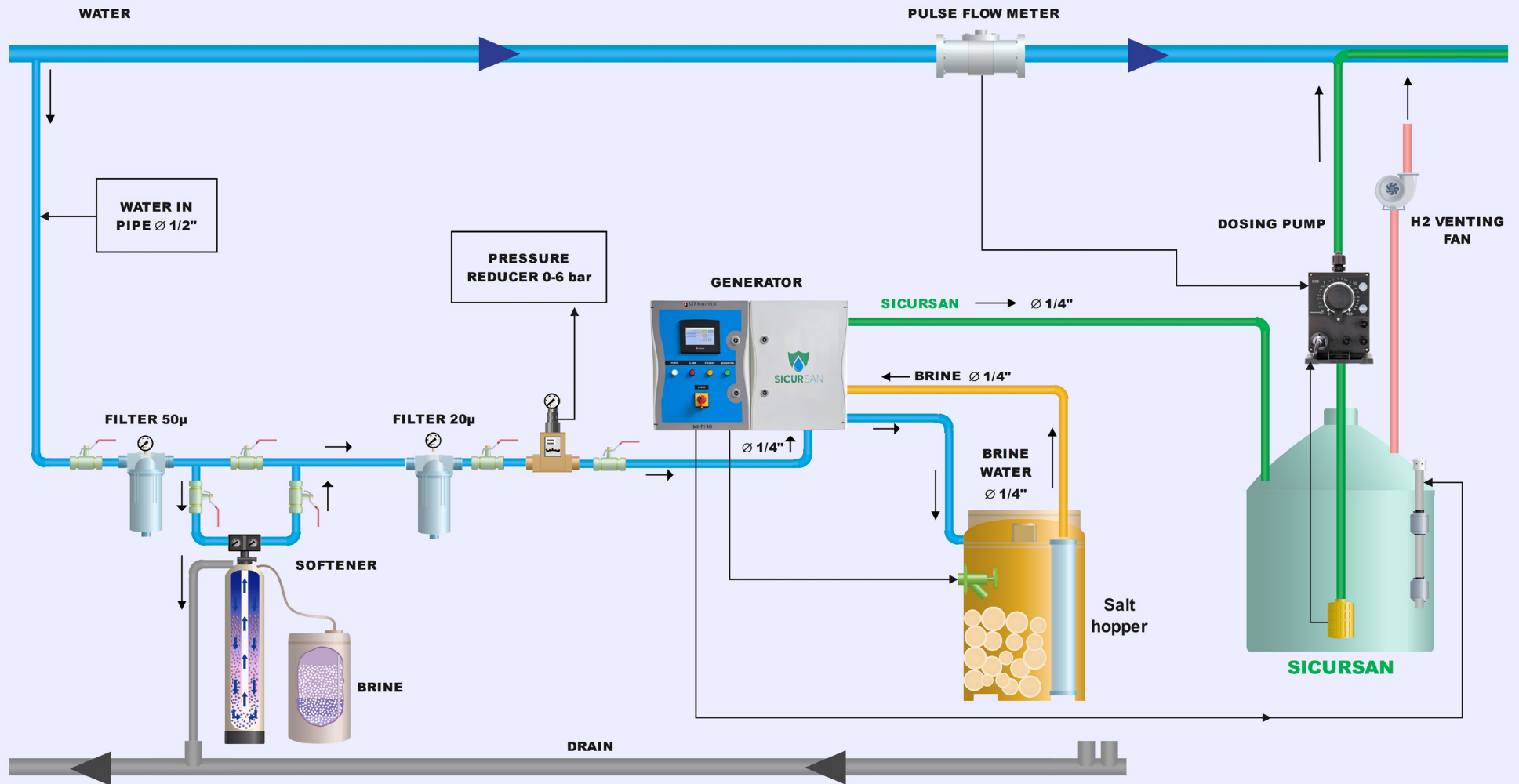
SICURSAN ADVANTAGES

- High ORP for rapid microbial inactivation
- Effective against Legionella, Pseudomonas, Staphylococcus, E. coli, and more
- No resistance development due to metastable oxidizing compounds
- Safe for humans, animals, and the environment
- Degrades into harmless residues—no neutralization required
- Multifunctional: disinfectant, sterilizer, and detergent
- Applicable as liquid, mist, or ice—pure or diluted

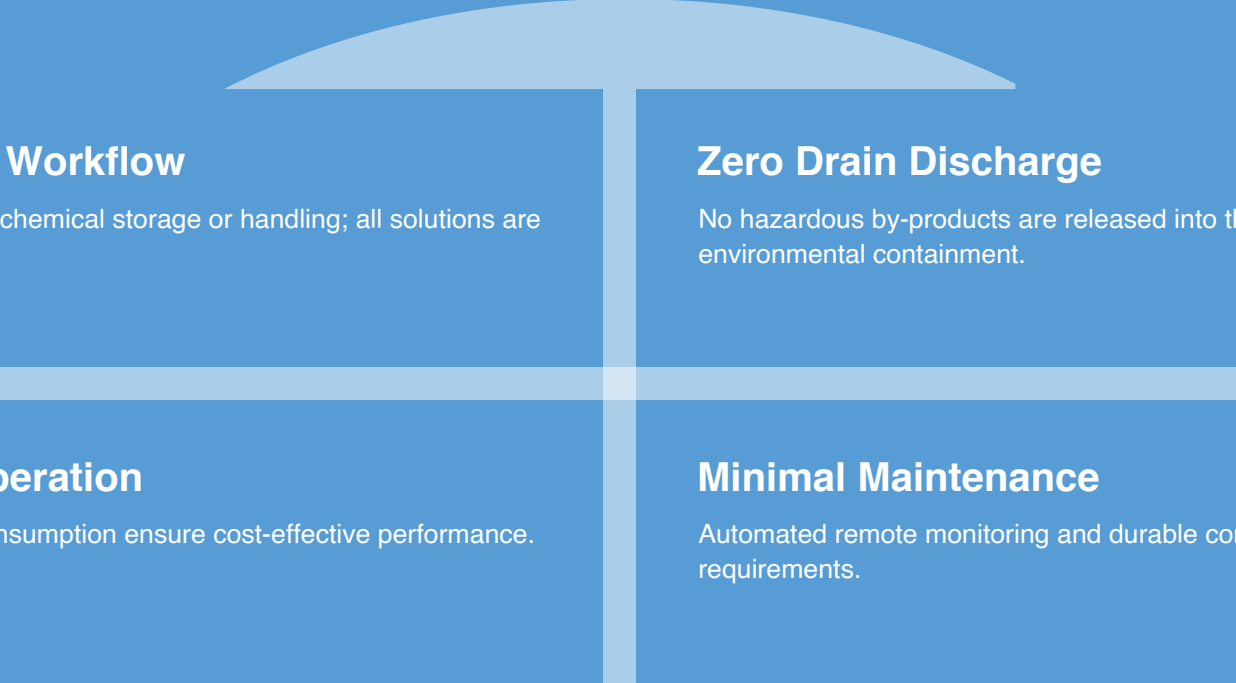


Scan the QR code for detailed information on our technology and certified test reports covering bactericidal, virucidal, fungicidal, and yeasticidal activity.

MI-F1-10 INSTALLATION LAYOUT



ENVIRONMENTALLY SMART, OPERATIONALLY EFFICIENT



Chemical-Free Workflow

Eliminates the need for chemical storage or handling; all solutions are generated on-site.

Zero Drain Discharge

No hazardous by-products are released into the drain—ensuring full environmental containment.

Economical Operation

Low energy and salt consumption ensure cost-effective performance.

Minimal Maintenance

Automated remote monitoring and durable construction reduce service requirements.

Flexible Integration

Systems are designed for easy configuration and compatibility with existing infrastructure.

PROVEN APPLICATIONS

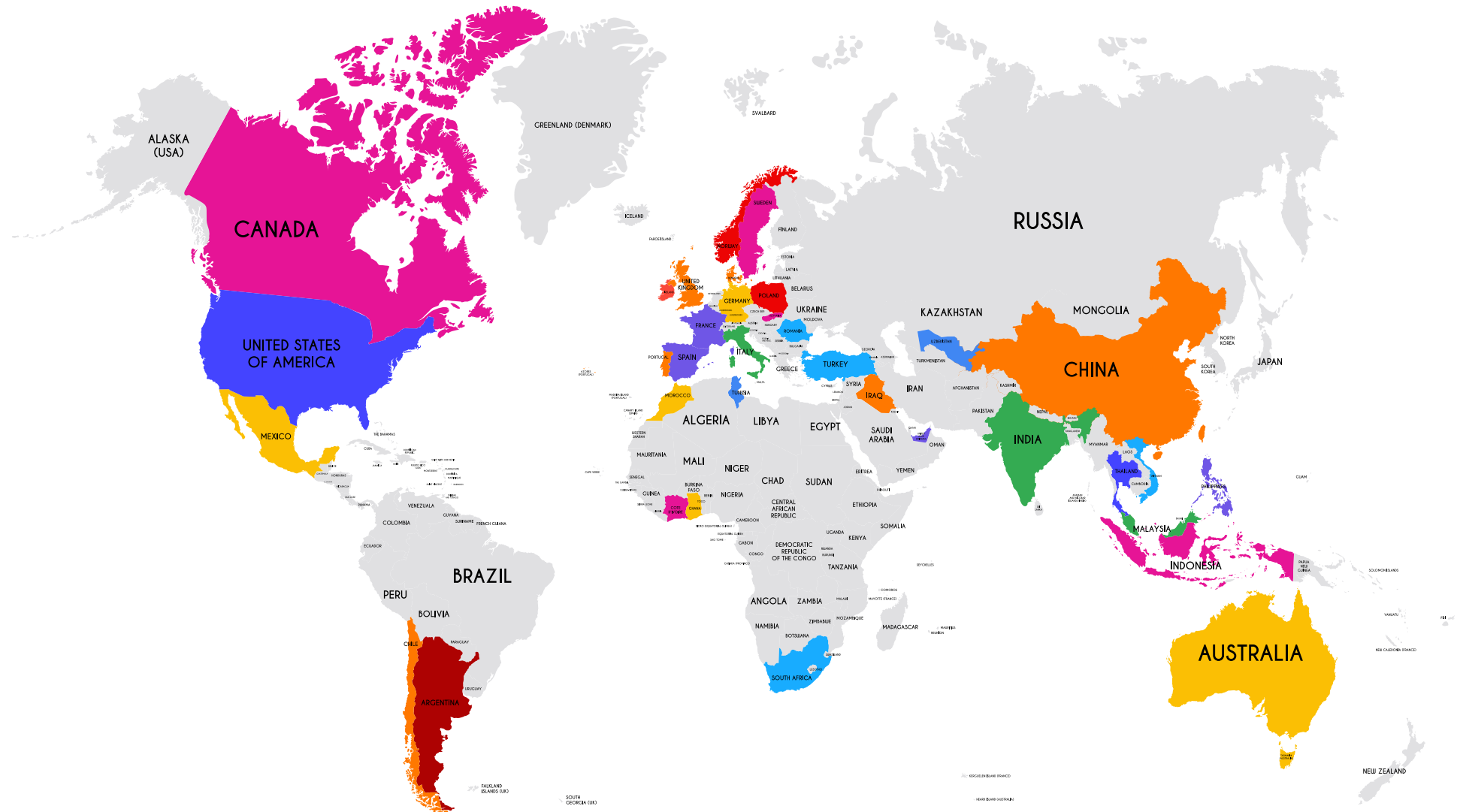
- Cooling towers
- Potable and wastewater treatment
- Hospitals and healthcare facilities
- Residential buildings
- Food and beverage industries
- Agricultural and livestock operations
- Swimming pools and spas

TECHNOLOGY HIGHLIGHTS

- Unique cell architecture with double electrode cooling
- High flow per cell with minimal salt and energy use
- No xenobiont formation or toxic by-products
- Fully automated operation with PLC and remote-control options
- Automatic start & stop of the system in the event of water supply interruption

GLOBAL REACH

Trusted in over 30 countries across five continents, Kirkmayer systems are deployed in diverse environments—from healthcare and hospitality to industrial and municipal infrastructure. Our technology supports safe water management worldwide, wherever reliability and compliance matter most.





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