



The world's safest,
most effective
disinfection technology

REDUCE YOUR CARBON FOOTPRINT

MIOX DWI (Drinking Water Inspectorate) registered products are being used across the country and around the world to solve the many issues confronting not only water systems but all markets requiring disinfection.

BROUGHT TO YOU BY WATERMAN ENVIRONMENTAL GROUP

SUPERIOR DISINFECTION BY MIOX

MIOX Corporation has over 1,000 installations across the World. Over 80% of these installations are in the municipal potable water market. Other applications include wastewater, food processing, commercial swimming pools, cooling towers, and other industrial processes. MIOX products are listed by the EPA as a Compliance Technology and certified by NSF International for Drinking Water System Components.



A Miox Installation

MIOX Corporation offers both mixed-oxidant and hypochlorite generators. Because the on-site generation process uses only salt, water and electricity, water treatment facilities can do away with the hazardous chemicals typically associated with water disinfection. With a MIOX generator, dry salt is loaded into a brine tank and combined with water to form a saturated brine solution. This brine is then diluted to a 3% to 5% concentration and fed to the electrolytic cell, which produces either a liquid mixed-oxidant or hypochlorite solution, depending on cell parameters. The disinfectant solution is collected in a storage tank with a low-level float that activates the MIOX generator as the tank is emptied and a high-level float that turns off the system when the tank is full. The disinfectant is injected into the water stream, and the chlorine residual can then be measured using standard DPD test equipment.

MIOX mixed-oxidant generators not only improve plant safety but also offer a number of solutions for other common water treatment goals, including disinfection by-product (DBP) reduction, biofilm removal, a more durable chlorine residual, improved taste and odor, and enhanced coagulation. Laboratory studies show much more effective kill than chlorine or even difficult-to-inactivate microorganisms, like Cryptosporidium. In addition, the U.S. government has reported mixed oxidants' successful inactivation of biological and chemical warfare weapons, including the anthrax spore, plague, smallpox, and various nerve and blister agents.

MIOX Corporation offers capital equipment with treatment capacities ranging from 24,000 gallons (90 m3) to over 500 million gallons (1.9 million m3) per day. The MSR MIOX Purifier, a miniaturized version of the technology, is a handheld, individual-use, water treatment device for the U.S. military, the camping and recreation market, and travelers. Other specialty-use MIOX equipment includes systems on-board U.S. Navy aircraft carriers and assault ships, disinfection for the U.S. Army's portable Reverse Osmosis Water Purification Units (ROWPUs) for soldiers in the field, and filtration, disinfection, and water treatment monitoring for U.S. Forest Service sites. The MIOX technology has also been selected by Airbus to provide the first on-board water purification system for a commercial aircraft.



COMPARISON OF DISINFECTION ALTERNATIVES

	Gas Chlorine	Bulk Hypo	Calcium Hypo	Chloramination	Chlorine Dioxide	Ozone	UV	On-Site Hypo	Mixed Oxidants
Effective	✓	✓	✓	✓	✓	✓	✓	✓	✓
Safety	✗	✗	✗	✗	✗	✗	✓	✓	✓
Chlorine Residual	✓	✓	✓	✓	✗	✗	✗	✓	✓
TTHM / HAA5 Reduction	✗	✗	✗	✓	✓	✓	✓	✗	✓
Chlorite/Bromate Reduction	✓	✓	✓	✓	✗	?	✓	✓	✓
Biofilm Removal	✗	✗	✗	✗	✓	✗	✗	✗	✓
Algae Elimination	✗	✗	✗	✗	✓	✓	✗	✗	✓
Pretreatment Benefit	✗	✗	✗	✗	✓	✓	✗	✗	✓
Eliminate Taste & Odour	✗	✗	✗	✗	✗	✓	✗	✗	✓
Easy to Maintain	✓	✗	✗	✗	✗	✗	✓	✓	✓
Lifecycle Costs Low	?	✗	✗	✗	✗	✗	✗	✓	✓

On-site generation of hypochlorite or mixed oxidants is the only disinfection offering that meets the top three requirements of effective microorganism inactivation, safe operation, and a chlorine residual. Mixed oxidants are the only offering that meet all treatment requirements in a single technology.

CALL US ON 0121 352 3700 TO FIND OUT HOW MIOX CAN HELP YOU

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