



APPLICATION NOTE 150

THE APPLICATION

Helping protect the world’s largest resource

With over 70% of the earth’s surface covered in water, it’s no wonder why many large industries use this resource as a main building block around their operation. Unfortunately, many companies have neglected the harmful impact caused to the aquatic environment. Ignorance can no longer be an excuse and new methods must be implemented to sustain the fragile marine life.

Utilizing elements found in seawater, Bioionix’s seawater treatment systems disinfect or treat the water you’re using. The simplicity of our systems can eliminate those costly systems you are currently using, no matter if its filtration, high pressure pasteurization, UV or nasty chemicals. Bioionix can help you achieve the sustainability you desire while lowering your carbon footprint.

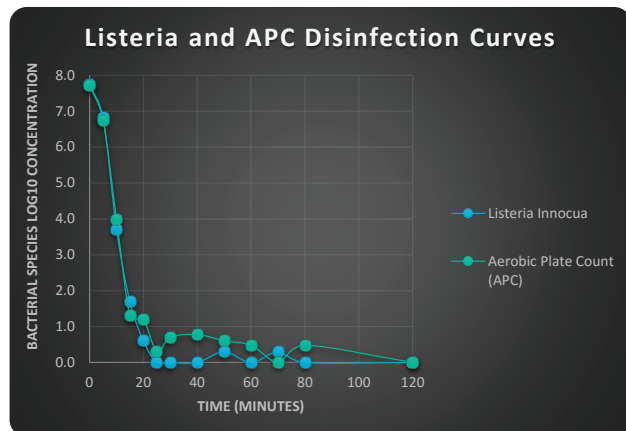
There are many advantages when comparing Bioionix to other technologies. Unlike UV, HPP, filtration and other methods, the added benefit to using Bioionix is the residual

disinfection making the process more efficient and effective. Residual disinfection provides continuous disinfection to the liquid stream, product and equipment. Bioionix has the ability to

maximize operation’s efficiency by treating contaminated and turbid processing liquids in a single pass. Many seawater applications around the world involve growing or transportation of live product. Bioionix has developed seawater treatment systems that not only provides you with the disinfection needed for your operation but also has the ability to keep your product alive. Our latest testing results show no change or harm to fish species being tested – even the most fragile gill tissues show no signs of change between fish exposed to our treated water versus fish in a “normal” controlled environment.



Ocean base fish farming operation.



Powerful Disinfection without Chemicals.

A breakthrough in process water microbial safety and reuse, the Bioionix system uses platinum catalysts to directly disinfect water or brine by generating a powerful combination of reactive oxygen and activated chlorine species right from the liquid itself. These Biolonix SuperOxidants™ attack microbials by complementary methods of action, including direct DNA destruction, cytoplasm impairment and cell wall disruption. Other SuperOxidants provide powerful residual disinfection.

SEAWATER TREATMENT

Ballast Water

Bioionix liquid treatment systems easily integrate into an existing ship's piping system and engineered to your exact application. No matter if your ships are used for transportation of live product in the ballast tank (wellboats) or other cargo. Bioionix has engineered solutions to take on these large volumes of water while not harming the live product or the environment when discharged back into the sea. Due to our unique and compact design, Bioionix eliminates the need for additional space and expensive filtration systems required for effective UV technology. Simply filter out the sharks and whales and we'll take care of the rest!

Ballast water serves many purposes but one problem remains consistent with all of them – the need for treatment. Bioionix has proven success in destroying harmful algae bloom (HAB), deadly viruses and bacteria, pesticides and much more.

Our innovative solutions provide an automated treatment process so you don't have to worry whether it's work or not. Our data capturing capabilities proves our system is functioning properly and eliminating cross contamination during operation.



Commercial fishing vessel using large volumes of seawater.

Processing Plants

Being located near seawater allows seafood processors and processing plants to utilize seawater in their operations and eliminate the large need for fresh water.

Bioionix's spray and dip interventions treat the incoming seawater and provide an added disinfection step for a safer product for your customers. With multiple product lines available, Bioionix has a solution for you no matter if your needs are for a sanitary or industrial design.

BENEFITS

It's the Answer to Using Your Resources Better, Using Less and Using Again



BENEFIT 1

Bioionix systems are safe, environmentally friendly, and chemical free.



BENEFIT 2

Simple, high-quality design makes our technology easy to operate and maintain.



BENEFIT 3

Our oxidation process can handle the toughest liquid stream challenges.