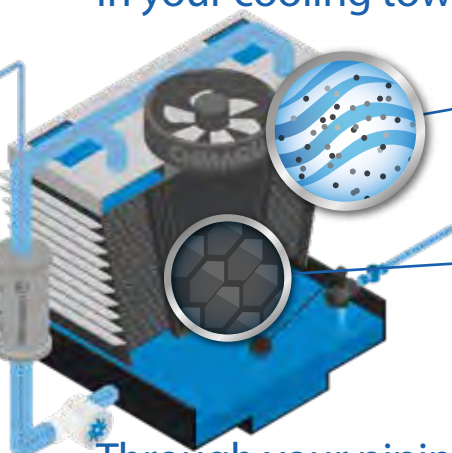


Did you know? In your cooling tower...



1 Nutrients and microbes are continuously scrubbed from the air.

2 This provides an ideal environment for bacteria to grow.



High levels of nutrients



Ideal temperature



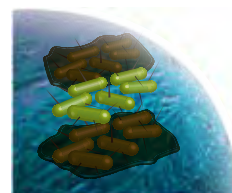
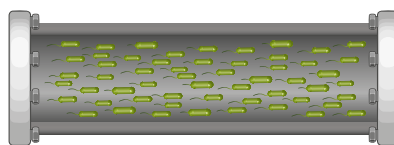
Neutral pH (7-9)



Continuous aeration

Through your piping and equipment, a biofilm forms.

As water circulates through your cooling systems, bacteria can multiply to high levels, even with routine biocide additions.



As they grow, bacteria attach to system surfaces producing a protective, jelly-like coating to form a biofilm. This is a response to stress such as biocide additions.

Biofilms cause serious problems.



CORROSION DAMAGE

Corrosive bacteria can grow to high levels under biofilms.



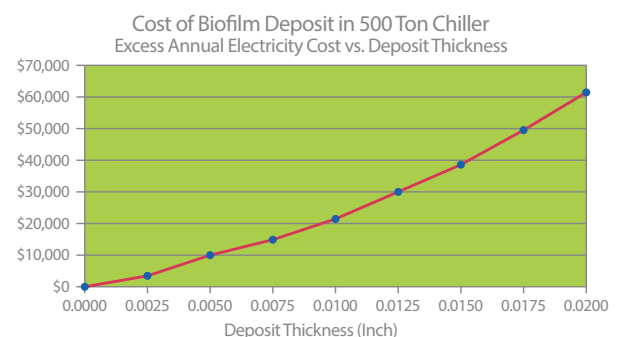
HARMFUL PATHOGENS

Harmful pathogens can grow in biofilms, including the bacteria associated with Legionnaires' disease.

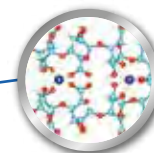


INCREASED ENERGY COSTS

Biofilms are very insulating. They reduce heat transfer efficiency 4X more than calcium scale deposits.



Biofilms Are Extremely Hard to Control.



Calcium Bridge



The molecules that form the biofilm are bound together with a locking mechanism termed the calcium bridge. High doses of biocides will not break the calcium bridge. The bacteria multiply, protected by the biofilm.

What if you could disrupt the calcium bridge?



bioeXile®

The Biofilm Cleaning Breakthrough

Disrupts the Calcium Bridge

bioeXile® is a new, patent-pending biofilm cleaning process that unlocks the calcium bridge to allow the biocide to destroy the biofilm.

⊗ Extremely Effective

bioeXile works with biocide additions to remove biofilm more effectively than using biocides alone or with biodispersants. This disrupts the persistor mechanism making it more difficult for biofilm to re-form.

⊗ Fast Dissolving

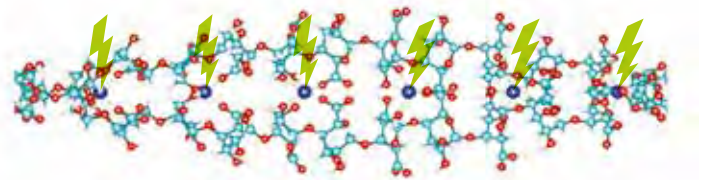


As the packaging dissolves, bioeXile components react releasing the key to unlock the calcium bridge.

⊗ Easy to Use



It comes in tablet form that can be added directly to the cooling tower basin, or in NSF-rated liquid form that can be pumped directly into the system.



All this...

⊗ Saves You Money



The bioeXile process helps keep the waterside surfaces clean by removing stubborn biofilms not controlled by routine biocide additions.

- Improves energy efficiency
- Reduces corrosion
- Helps your biocide program control waterborne pathogens

When to Use

- Periodically, to enhance biocide additions.
- Spring, to ensure efficient operation after layup.
- Before a system is taken out of service for cleaning or layup.
- Whenever there is a detectable biofilm problem.

Let your Chem-Aqua representative show you how the bioeXile process can solve your biofilm problems.

The only cleaner that can unlock your Biofilm problems!



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