

# AcquaCore® Series\*

## Low Carbon Biocide Potentiators

### The Problem

Biocides are well-known additives used for microbial control in industrial water treatment (IWT) to mitigate costly issues, such as poor heat transfer, microbially induced corrosion (MIC), plugging and fouling. However, biocides are toxic by definition and often added in excess, potentially compromising asset integrity.

With increased interest in sustainability, companies across industries are seeking less-toxic, lower-cost alternatives with reduced environmental impact and without sacrificing performance.

### The Solution – AcquaCore®

AcquaCore does not exhibit any pesticidal activity when used alone. When co-fed with biocides, AcquaCore helps achieve consistent microbial control by reducing interference from inorganic environmental contaminants, such as naturally occurring minerals and metals that interfere with active biocides.



### Lowers use of active biocide and related treatment costs

AcquaCore improves the efficacy of biocidal applications, such as glutaraldehyde, bronopol, and peracetic acid (PAA), allowing for lower use of active biocide and related treatment costs. It also reduces the need for high-dose oxidizer concentrations.

### Multifunctional corrosion inhibitor

AcquaCore is a proven solution to help reduce the use of phosphates and mitigate mild steel and copper corrosion, providing multifunctional performance benefits.

### Sustainable US supply

AcquaCore is manufactured in the US via a carbon-negative chemenzymatic process. It is non-toxic, biodegradable, N- and S-free, and lowers safety risks associated with high levels of biocide use, such as discharge water toxicity.

\*Solugen's AcquaCore® series are not registered according to FIFRA and therefore have no associated FIFRA claims.



## AcquaCore® Enables **Reduced Biocide Use** and **Improved Performance**

Across several test cases where AcquaCore was evaluated by itself and co-fed with common biocides used in IWT, AcquaCore demonstrated no pesticidal activity by itself and a potentiation effect when co-fed, enabling a significant reduction in biocide use while improving performance (Figure 1).

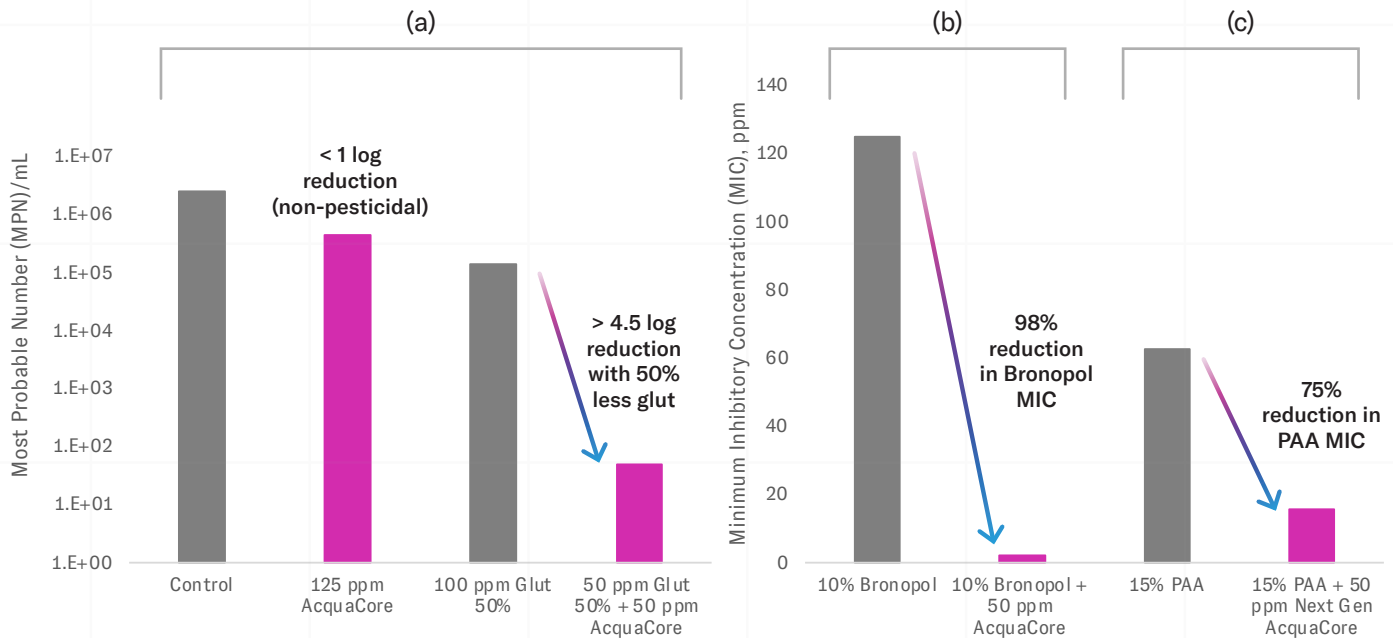


Figure 1. Potentiation Effect of AcquaCore with (a) Glutaraldehyde, (b) Bronopol, and (c) PAA

### Test Conditions

- Lab trial in triplicate using 96-wells microtiter plates, 4 hr. contact time at rm. temp., mixed bacterial inoculum of GHB and APB in Permian fresh water.
- Standard MIC test with mixed bacterial inoculum of GHBs in Marcellus fresh water.
- Standard MIC test with mixed bacterial inoculum of GHBs in wastewater treatment plant (WWTP) water.

### About Solugen

Solugen is a bio-based specialty chemicals manufacturer and supplier whose mission is to decarbonize the chemical industry by revolutionizing the way chemicals are made for use across a variety of markets and applications.