# CounterQuat™

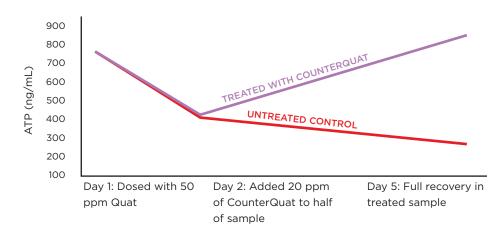
### Overcome Toxicity and Shield Bacteria From Quat

CounterQuat™ is a next generation technology developed to protect wastewater bacteria from toxicity, especially the effects of quaternary amines. CounterQuat was created to aid wastewater operators who have no control over toxic compounds that may come down the drain, but want to protect their wastewater biology and avoid noncompliance.

CounterQuat works by further developing the polyprotein matrix that bacteria naturally use to shield themselves from environmental toxins. CounterQuat develops and strengthens this defensive barrier. The result is greater bacteria resilience, flocculation, and nutrient removal in the presence of toxicity. CounterQuat can be fed upstream of the plant or directly in the plant and is excellent for wastewater plants concerned with incoming toxicity killing their organisms and causing a cloudy effluent and loss of nitrification.



Figure 1:
Biological activity over time, measured as ATP



The Aquafix Laboratories ran tests to determine the success of CounterQuat in increasing biological activity after upset from quat toxicity. Samples dropped 387 ATP after being dosed with quat, but a dose of CounterQuat the next day raised ATP back up another 455 ng/mL, higher than the initial sample even.



# **Dose Rates**

## CounterQuat



ecovery From Severe Toxicity	
Initial Dose	10 gal per 1 MGD per day
Maintenance Dose	6 gal per 1 MGD per day

Preventative Dose	
Initial Dose	4 gal per 1 MGD per day
Maintenance Dose	1 gal per 1 MGD per day

### **CounterQuat Dosing:**

- Add daily to aeration basin, or headworks of plant
- Can be metered in
- Best used as a preventative treatment
- May need to increase dose rates in cold weather

#### **Available Size:**

- 55 gal drum
- 275 gal tote

Notes:	