

The Biocidal Performance of BromMax Compared to Activated Sodium Bromide and Bromo-Chloro-DimethylHydantoin (BCDMH)

Method:

Sterile phosphate buffer samples (pH 8.5) were inoculated with *Pseudomonas aeruginosa* to give a concentration of approximately 5×10^6 bacteria/ml and then challenged with the test systems at a nominal concentration of 0.2 ppm total halogen (as Cl₂).

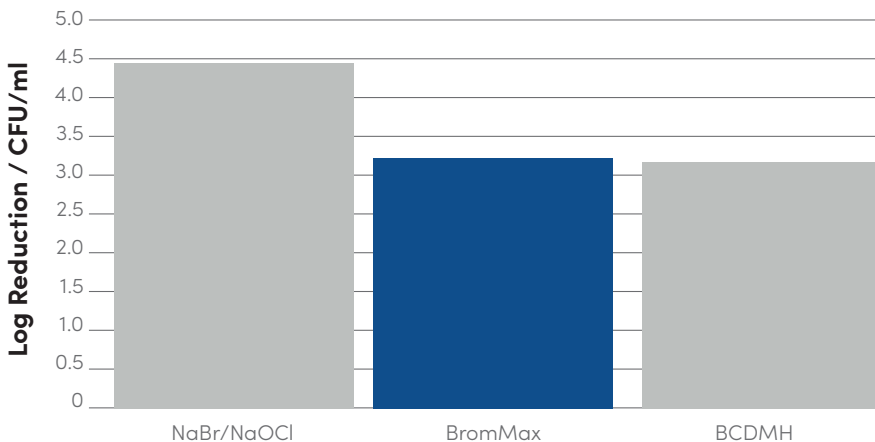
After a contact time of 10 minutes at 35° C, an aliquot of sodium thiosulfate was added to each sample to neutralize the halogen. The level of viable bacteria in each sample was determined by plate counting. Plates were incubated at 35° C for 48 hours.



The biocidal performance of BromMax was compared to a solution of sodium bromide activated using an equimolar amount of sodium hypochlorite bleach, and a solution prepared from 1-bromo-3-chloro-5,5-dimethylhydantoin (BCDMH).

Results:

Efficacy of BromMax Compared to NaBr/NaOCl and BCDMH



The figure above shows that in comparison to an untreated sample, BromMax displays equivalent efficacy to the performance of BCDMH. It can also be seen that the unstabilized NaBr/NaOCl system is also highly effective against this microbiological challenge.

Conclusion:

BromMax is a highly effective microbiocide under typical cooling water conditions. It compares favorably to the performance of traditional bromine biocides.