

Electrolytic Bromine

The “Green” Cooling Tower Biocide

MB0411

Need for Water Treatment

Due to their low operating cost, cooling towers are the technology of choice for commercial and industrial cooling. Unfortunately, cooling tower water is also an excellent medium for growth of microorganisms which cause severe problems related to increased risk of Legionnaires’ disease, physical plugging of cooling water passages and pipes, accelerated corrosion under biological slimes, and increased energy usage due to surface biofouling of heat exchangers.

Toxic Biocides

Standard water management technology for control of microorganisms uses various costly, hazardous, and toxic chemicals such as dithiocarbamate, hydantoin, isothiazolin, and glutaraldehyde; commonly referred to as biocides. The commonplace transportation, storage, handling, and use of toxic chemicals represents a big safety hazard to operators, and a severe environmental risk due to accidental spills and the toxicity of treated cooling tower blowdown.

Electrolytic Bromine – The Cost Effective, Safe, Green Biocide Technology



ElectroBrom Model EB 30

Bromine is very effective for microorganism control, but past delivery methods have the same cost, safety, and environmental problems as other biocides. The economical electrolytic bromine delivery method developed by ProChemTech, patented* ElectroBrom™, MiniBrom™, and SSBrom™ units, makes bromine at the use location from a non-hazardous aqueous salt solution, or cycled cooling water, eliminating all the problems associated with use of biocides.

Cost Effective: Treatment cost for cooling water with common biocides ranges between \$0.85 and \$4.75 per 1000 gallons treated. In comparison, electrolytic bromine costs less than \$0.30 per 1000 gallons treated.

Safety: All common biocides are very hazardous to handle, in comparison the electrolytic bromine biocide process has no hazardous materials involved in the process at any point.

Environmental: Cooling water treated with common biocides remains toxic and has an adverse effect on the environment when discharged as blowdown. Electrolytic bromine, in contrast, rapidly degrades to harmless bromide ion as commonly found in sea water.

Green: A MiniBrom MB 2.5 was recently specified for a USGBC LEED Platinum certified project to obtain points for reduction of toxic material use and use of innovative technology.

Electrolytic bromine units are currently available for all sizes of cooling towers from:

ProChemTech International, Inc.

“Innovation in Water Management”

Apache Junction, AZ, and Brockway, PA

814-265-0959

www.prochemtech.com