



Apollo

Biofilm control with chlorine dioxide

Complete solutions that are applied throughout its value chain

SITUATION

Chlorine dioxide (ClO₂) is a fast-acting, selective biocide. It does not react with a wide variety of compounds such as acids, alkanes, alkenes, alcohols, aldehydes, ammonia, and more. This property makes it an effective microbiological control agent, even under conditions of contamination from other processes.

The biocidal strength of this compound is applicable in industrial processes such as food disinfection, water purification, wastewater treatment, control of mollusks in systems that use seawater and cleaning of cooling towers with a concentration of «biofilm».

Biofilm, is the name by which the set of microorganisms contained in a layer of silt is known. These agglomerate on any surface that has contact with water. This type of biological film provides asylum and protection to pathogenic organisms that are suspended in the liquid. In systems such as cooling towers, biofilm reduces the efficiency of heat exchange equipment, which increases energy consumption and the cost of the process.

SOLUCIÓN

Since in water it can exist in the form of gas, ClO₂ is able to cross the cell membranes of bacteria and destroy them. This characteristic makes it an effective alternative to remove biofilm, over traditional methods that use hypobromous or hypochlorous acids. ClO₂ acts in a wide range of pH, from 2 to 10. Its reaction does not generate dangerous by-products for the environment and also, due to the fast time in which it is dosed, it does not contribute to the increase in the corrosion rates of the system.

To address problems caused by biofouling, Apollo provides comprehensive solutions tailored to each client. Apollo brand chlorine dioxide generators have a conversion capacity of 95 to 100%. This is achieved thanks to the fact that the system uses three chemical precursors, unlike others that use only two, and which only achieve 80% conversion.

If your industry is experiencing difficulties caused by poor microbiological control, please contact the Apollo sales representatives and find out what we can do for your process.



EXPERIENCE

95 - 100%

conversion thanks to a system of three chemical precursors

QUICK DOSAGE

that prevents the increase of the corrosion rates of the system

SUSTAINABLE SYSTEM

free from the generation of by-products, dangerous for the environment

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