

# **pHixr™**

## **Processing Water Acidulant**

- **Ready to use**
  - **Effective**
  - **Economical**
    - **No mixing - No mixing errors**
    - **Reduced labor**
    - **FCC grade, GRAS**

- ◆ For use in slaughter applications, such as: chiller water, pickers, washers, and prescald rinse.
- ◆ Effective at all chiller water temperatures.
- ◆ Effective in fresh or red water.
- ◆ Human food grade.
- ◆ No fumes or odors.
- ◆ Highly concentrated so the dilution ratio is very high. Economical to use.
- ◆ Ready to use. No mixing required.

### **Why should I use pHixr in my plant?**

The key to effective chlorine use is to keep it in the form of HOCl (hypochlorous acid). This is accomplished by controlling the pH of the water\*.

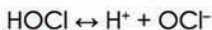
Managing the pH and effectively utilizing the chlorine can be accomplished cost-effectively through the use of pHixr.

\*Amount of pHixr required to adjust water pH may vary by location depending upon water quality (pH and dissolved chemicals such as minerals, bicarbonates, etc.).



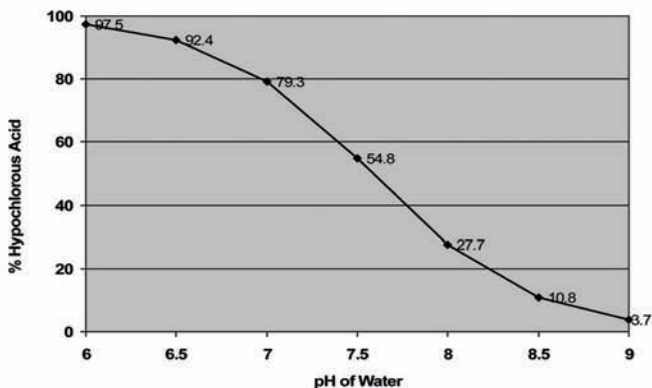
## The science and necessity of pH control

- ◆ To accomplish disinfection, a chemical reaction between chlorine and water (hydrolysis) must occur to form hypochlorous acid (HOCl).
- ◆ Regardless of the chlorine source, the desired end product is hypochlorous acid (HOCl). This is the chemical agent that destroys the bacteria and other potential contaminants.
- ◆ Hypochlorous acid is a "weak" acid, which means that it tends to undergo partial dissociation as follows:



As can be seen in the chart below, water at a pH of 8.5 yields only 10.8% HOCl and would require approximately 8.5 times as much bleach as water at a pH of 6.5 (92.4% HOCl) to give the same amount of HOCl!

Percent of Hypochlorous Acid in Water of Specific pH



The germicidal effects derived from the chlorination of water are well documented. However, scientific principles must be followed for the chlorine to be effective. The hit-or-miss approach will not be effective...simply being "close" isn't sufficient in today's business environment. It cannot be over emphasized that simply "hooking up chlorine and letting it run" will not accomplish the antimicrobial or germicidal results that are desired. Moreover, this approach may produce undesirable effects, e.g. noxious odors and an unhealthy work place environment. Managing the pH and effectively using the chlorine is key, which can be accomplished cost-effectively through the use of pHixr.

**MIONIX** CORP  
applied innovations

4031 Alvis Court, Rocklin, CA 95677  
877-464-6649 [www.mionix.com](http://www.mionix.com)

