

BALANCED WATER SUPPLIES WITH ARM & HAMMER™ ALKALINITY FIRST™



POTABLE WATER

Potable water is the lifeblood of human existence, and we trust in its ability to sustain us, our families and our communities. ARM & HAMMER™ ALKALINITY FIRST™ Sodium Bicarbonate provides critical benefits that lead to safer drinking water.

Metal management and corrosion control challenges:

Bicarbonate alkalinity is a natural ingredient of most water supplies, but acid rain and other causes can create alkaline deficiencies that corrode metal and potentially create residues that could leach into municipal water supplies. Controlling metal pipe corrosion in municipal water systems is a major concern for local drinking water suppliers.

Meeting EPA standards for allowable lead and copper in potable water is critical, not just from a health point of view, but also from the perspective of operational cost efficiency. The method of corrosion control chosen by a municipality can have far-reaching effects on overall operational costs beyond those for metals control.

Process and treatment chemical considerations: In addition to metals and corrosion control, the use of sodium bicarbonate can improve the performance of other water treatment chemicals. Proper bicarbonate alkalinity is required for the optimization of other water processes such as chlorination, flocculation and coagulation and can lead to significant savings. Unlike phosphates, sodium bicarbonate does not promote biofilm growth by providing needed nutrients.

The Potable Fix – ALKALINITY FIRST™: Supplementing municipal water with ARM & HAMMER™ ALKALINITY FIRST™ Sodium Bicarbonate can restore the alkalinity level to 30–40 mg/L as CaCO_3 (and an optimum pH between 7.5 and 8.5). It reduces corrosiveness and creates a thin, tenacious, carbonate coating on the interior of lead and copper pipes, which effectively seals them from water, thus significantly preventing metals from leaching into the water supplies. It can also potentially leading to significant savings, and, unlike phosphates, sodium bicarbonate does not promote biofilm growth.



**TRUSTED BRAND.
PROVEN PERFORMANCE.**

Performance Products Group

WASTEWATER

The importance of balance in sludge treatment: Potable water in sludge treatment plants depends on microorganisms to digest organic wastes and control odor. Acids produced in the waste breakdown process tend to lower pH, altering the biological balance and resulting in bulking sludge, digester upset, and “rotten egg” hydrogen sulfide odor.

ARM & HAMMER™ ALKALINITY FIRST™ Sodium Bicarbonate provides alkalinity control that helps prevent upsets in plant operating systems, and can help avoid trouble and undue expense. Unlike harsh alkaline chemicals like lime, caustic soda and ammonia, sodium bicarbonate is buffered and cannot cause pH overrun. It can be slug-fed or added continuously to digesters at the operator’s discretion.

Best practices in ALKALINITY FIRST™ wastewater applications:

In aerobic digestion systems, the optimum feed point is the return sludge line or the head of the aeration basin. Since most wastewater treatment plants low-load overnight, sodium bicarbonate should be added in the late afternoon or early evening. In anaerobic systems, the recommended application is in the wet well or scum pit on the sludge line leading to the digester. The sodium bicarbonate should be fed carefully to promote maximum distribution throughout the digester.

Learn more about how ALKALINITY FIRST™ helps balance water supplies.

At ARM & HAMMER™, we believe in educating our customers thoroughly in the use of our products. For more information about how ALKALINITY FIRST™ can help develop potable water or neutralize wastewater, please visit our website at www.ahperformance.com, or call our in-house specialists at 1-800-631-5591.